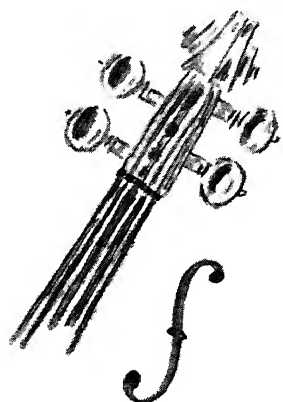

STRING
PROBLEMS
PLAYERS & PAUCITY

THE TANGLEWOOD STRING SYMPOSIA
1963 and 1964

LOUIS KRASNER, *Chairman*



STRING

With the assistance of the
Martha Baird Rockefeller Fund for Music, Inc.

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LOUIS KRASNER, *Professor of Violin*
School of Music, Syracuse University



1965

Published by the
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FOREWORD

The Boston Symphony Orchestra has been fortunate indeed to have the cooperation of so distinguished a group of participants in the venture which is described in this report.

All of the people involved have given so freely of their time and energies that the importance of this project becomes even more evident.

In Louis Krasner, we have a Chairman who has involved himself in this project with love and imagination which show his devotion to our profession.

On behalf of the Boston Symphony Orchestra, the Berkshire Music Center, and Erich Leinsdorf, our Music Director, it is my privilege to thank all the participants and the Martha Baird Rockefeller Fund for Music, Inc. for their intellectual, moral, and financial support.

Joseph Silverstein
Concertmaster, Boston Symphony Orchestra
Teacher of Violin, Berkshire Music Center

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ACKNOWLEDGMENTS

As chairman of the 1964 String Symposium, I am sincerely grateful to the many people whose efforts helped to make the 1963 and 1964 symposia successful and this report realized. Especial thanks are due all of the participants, each of whom approached his task with seriousness and an earnest desire to work unstintingly until a solution is found to the present string problem. Regrettably, the curtailed accounts of the proceedings cannot completely represent all the many valuable thoughts and aspects of the discussions.

Appreciation is expressed to Mrs. Warren Benfield and Mr. Thomas L. Turk for their assistance to me prior to the 1964 meetings, and to Mr. Howard M. Van Sickle, Mrs. Joseph Lotito, Mrs. Sidney Thomas, and Mrs. Richard Hillman for transcribing material from tapes of the sessions. Mrs. Antje Lemke is gratefully acknowledged for her helpful advice.

The Martha Baird Rockefeller Fund for Music, Inc., and the Berkshire Music Center gave more than financial support; their initiative, full cooperation and extensive encouragement made the symposia possible.

Finally, my deep appreciation is expressed to Miss Judith Prevratil who worked closely as my assistant throughout the organizing and editing of this report.

L. K.

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INTRODUCTION

On August 16-17, 1964, a String Symposium dedicated to the problem of a diminishing interest in string instruments was held at the Berkshire Music Center, Tanglewood, Lenox, Massachusetts. The conference, in four sessions, was designed to focus further attention on the serious string instrumentalist shortage facing music in the United States, to offer positive suggestions toward solution of the problem, and to create increased awareness of the need for an active program to deal with the situation. The symposium was in large measure the result of efforts on the part of Erich Leinsdorf, Director of the Berkshire Music Center; the Martha Baird Rockefeller Fund for Music, Inc., supplied financial support. Eminent instrumentalists and teachers participated, eleven presenting prepared papers on related areas of concern, and six forming a panel for discussion and formulation of ideas for further investigation. Invited observers, musicians, and educators in the audience contributed as well.

The following report consists of the eleven papers presented during the first three sessions, and a summary of the fourth session during which ideas from the preceding sessions and recommendations for action were discussed by the speakers, panelists, and audience. In addition, extracts from a previous String Symposium, which was held during the summer of 1963, are included as background material.

The string problem now having become a concern of the major symphony orchestras is, it seems to me, a sort of growing pain -- a symptom of the dynamic development of music throughout the land. It is true that our lack of string players and its consequences relate in considerable measure to the educational and general social problems of our growth, development, and expansion. While massive efforts are undertaken to cope with these broader considerations, our responsibility remains to deal with those general and immediate causes pertaining to our specific area.

We need additional string players immediately, because the field has enlarged. We need also to plan for increased future demands, just as the physicists carefully and systematically now plan their 1970 requirements. The number of orchestras is continually increasing. Recently, a reputable manager announced publicly that in five years there would be twenty-five symphony orchestras in the United States on annual contract. And, there is no question but that the salary picture is steadily improving. It is likely that important information, yet unknown, would be revealed if a survey were made among some nine hundred string players from the thirty-odd major orchestras concerning their views of their profession and its problems. The music profession would indeed benefit from the experience of such a group as the American Institute of

Physics, whose data gathering and publicizing activities have no doubt been a valuable service to that field.

The roots of the string problem may well lie in our need for keeping pace with general educational improvements, and making our subject come alive through continued action on a national scale. Yehudi Menuhin stated it well in a recent article when, referring to the growing interest in both old and new music, he wrote: "History seems to be traveling in both directions, forward and backward, and the modern violinist must be at home in all types of ensemble, and all styles -- a thoroughly educated and versatile musician -- as well as a skilled fiddler." In the same article, Menuhin mentions the success of the Central School of Music in Moscow, with its methods of group teaching, and his own London Junior Music School. In addition to these, we have heard of the successful work in the Suzuki and Toho Music Schools of Japan. What are we learning from all these experiences? Are we applying the best features of these examples in our own country?

The answer is obviously both yes and no. The state of North Carolina is one affirmative example. There, in a historic decision, the state legislature recently set up and is financing the North Carolina School of the Arts. This school will bring together promising young people from all parts of the state, give them further training in their special ability, as well as prepare them to take responsible places in our changing society. What can be done to initiate this type of program in other parts of the country?

It is important for this nation to find the many talented children who live in rural areas, away from our centers of culture and learning; and it is our duty to search out the talented young people who are socially and educationally deprived. Such developments could form the basis of a cultural and social contribution to this country similar to the impact of European immigrants in previous years. The Poverty Program can mine a wealth of resources from the raw reserves of music!

Are we taking advantage of new methods of teaching in the light of changing demands? For example, teaching machines and language laboratories, as well as instructional television, are recent innovations which are helping to accelerate the learning process.

Are our school boards and school administrators convinced of the value of student orchestras? Strings are the heart of an orchestra, and school officials should know that more career opportunities exist for orchestra players than for bandmen.

If professional musicians demonstrate their sincere interest in developing public school string programs, perhaps more schools will respond. It might be well for professional orchestras to maintain closer contact with school and university orchestras. What can we do to stimulate the establishment of string soloists, or ensembles-in-residence, for school systems, or even for towns and cities? The industrial city of Flint, Michigan, has had an artist-in-residence for the entire community during the past two years.

How do we maintain an interest in music, among intellectually gifted young people? Victor Walsham, Master of Trinity Grammar School in

London, stated that "the core of the matter is, that when a child is good at music, but also at so many other things, he is expected to follow his nonmusical abilities. Our system tends to discourage the ablest people from following this great art because the rewards at the end are so very unrewarding."

There are, nevertheless, encouraging signs for us in the United States. Our own civic leaders now do regard their local symphony orchestra as one of the keys to the community's cultural well-being. The irony of it is, however, that the significant symphony orchestra development may actually be undercut by the continued shortage of qualified string players.

We should be aware of the fact that certain members of our profession consider serious music the province of an elite minority, and feel that efforts to broaden the basis of musical participation and enjoyment should not be actively encouraged. At the same time they complain, inconsistently, it seems, that cultural values of our present age and society are in the process of deterioration.

Many of us have been confronted with the disturbing question, "... anyway, what future is in store for the string instrument family?" As responsible members of the string profession, we are not privileged to stand aside while history determines the role of stringed instruments in the music of today and tomorrow. In August 1963, as the final session of the First Tanglewood String Symposium was being held, a Fromm contemporary composers' concert was taking place in another auditorium on the grounds. The New York Times concluded its account of both events, as follows: "It was paradoxical, that only a hundred yards away, leading violinists were discussing problems which would evaporate if the trend of composing evinced at the Fromm concert ever became the rule."

Let us begin now, to respond to our immediate needs and to plan for the future. Tomorrow will come, perhaps too soon, but it must not make its way without us!

Louis Krasner
Editor

Syracuse University
January 1965

SYMPOSIUM ONE, August 18-19, 1963*

"It started a year ago when I visited the String Congress of the American Federation of Musicians at East Lansing, Michigan," said the noted director of the Berkshire Music Center, Erich Leinsdorf. "Quite a few of the people who are here today on the panel and in the audience were then there on the faculty, and a few discussions convinced us that something very radical and energetic had to be done."

Thus began the efforts of Mr. Leinsdorf and the host of musicians -- professional players and music teachers -- whom he had gathered at Tanglewood in order to define and solve the problems which have brought about the serious shortage of string players in symphony orchestras and the general, over-all decline of interest in string instruments. He spoke in opening the first String Symposium, held at Tanglewood in the summer of 1963.

"The opinions of this gathering should illuminate the several reasons why there is an alarming shortage of good string players," Leinsdorf said, thus setting the task for the participants in the 1963 symposium. Panelists and speakers were asked to cover an agenda of two main topics :

1. Problems in teaching basic techniques for string playing
 - a) mechanical application
 - b) musical application
 - c) physiological problems and their relationship to basic technique
2. A curriculum for the applied and teaching music major
 - a) consideration of essential subject matter
 - b) scheduling of curriculum
 - c) correlating applied and teaching curricula.

Richard Burgin, Associate Conductor of the Boston Symphony, and Joseph Silverstein, Concertmaster of the Boston Symphony, coordinated this symposium. Four concertmasters were on the panel of speakers for which Burgin acted as moderator, together with two members of major orchestras and nine string teachers. An additional guest was George Zazofsky of the Boston Symphony and also Chairman of the Executive Board of the International Conference of Symphony and Opera Musicians. The panelists, summaries of whose speeches are presented here, were:

* A short synopsis is presented here. A detailed mimeographed report is available from the Berkshire Music Center, Symphony Hall, Boston, Massachusetts.

Max Aronoff, Director, The New School of Music
 Anshel Brusilow, Concertmaster, Philadelphia Orchestra
 Stuart Canin, Oberlin College
 Rafael Druian, Concertmaster, Cleveland Orchestra
 Broadus Erle, Yale University
 Samuel Gardner, Juilliard School of Music
 Sidney Harth, Carnegie Institute of Technology
 Louis Krasner, Syracuse University
 William Kroll, Mannes College of Music, Peabody Conservatory,
 and Cleveland Institute of Music
 Sheppard Lehnhoff, Violist, Chicago Symphony Orchestra
 Theo Salzman, Carnegie Institute of Technology
 Henry Siegl, Concertmaster, Seattle Symphony Orchestra
 Joseph Silverstein, Concertmaster, Boston Symphony Orchestra
 Paul Stassevitch, De Paul University.

"What real remedies can we provide?" Leinsdorf asked. He emphasized especially the need to go beyond a diagnosis of the problem. And he outlined some areas in which the panelists might contribute specific recommendations for improvements leading to its solution. "Your first concern," he suggested, "should be how to arouse interest in string playing. . . . Before developing better and more sophisticated methods of teaching, you might think of ways to inspire curiosity within those who, if left alone, would not take up any stringed or bowed instrument. . . . The string instrument is today considered an antique. Your deliberations could start making it a modern, contemporary and challenging part of musical life."

Perhaps the most valuable lesson to come out of this first string symposium was summed up by Howard Klein's article in The New York Times, August 21, 1963. He wrote: "There was some disagreement among the panelists on specific problems -- methods of teaching, economic aspects, importance of early training -- but they agreed on the value of the discussions for they pointed out how broad and unclear the problem is." Looking back a year later, following the greatly expanded and advanced second symposium, he would have been able to note that while some of these disagreements remained, more had been worked out, the problems considerably clarified, and lines of action denoted on the way to coming to terms with the string shortage.

FIRST SESSION, August 18, 1963

Methods and Materials

Joseph Silverstein began the discussions of the first session of the symposium, stating, "there is not a general lack of string players." Rather, he added, there is a lack of string players "qualified for acquitting themselves successfully in any area of the music profession. I am speaking in terms of chamber music, orchestral playing and teaching."

Alarmed by the lack of qualifications for orchestral work exhibited by

the numerous young musicians auditioning for string positions with the Boston Symphony, Silverstein had concluded that their backgrounds were faulty. He began studying materials used in classroom teaching and found in the beginners' books "a great clue to one of the prevalent inabilities of these players to understand proper accidentals, their difficulty in reading notes properly."

In the dominant approach to beginning playing, he said, large groups of children can be taught simple tunes quickly and conveniently. In the process, however, faulty note reading techniques are acquired, and no harmonic awareness is developed. "It is a very short-range viewpoint," he asserted, "and because of it, of the hundreds and thousands of children who start in classrooms on orchestral instruments every year, very few survive beyond this first year."

Going on to a more advanced level of study material, Silverstein found it to be naive and outdated, offering "no challenge to the students" and aiding "in no way their development into fine string players and fine musicians." The same was true for material on the advanced teaching level; material such as the etudes of Gavinié's, Rovelli, and Fiorillo, he submitted, does not always contribute to students' total musical and mechanical development. By focusing attention solely on technical problems, it detracts from the students' awareness of ensemble requirements.

In emphasizing the need for revised teaching materials on all levels, Silverstein saw promise in the fact that today many eminent solo artists are called on to become pedagogues in the universities and are developing an interest in the pedagogy aspects of music. He saw hopes for solving this problem if an advisory council could review teaching methods "so that the gap which has traditionally existed between the playing professional and the professional teacher can finally be bridged."

Teachers for Basic Training

"To me, the first item on the agenda -- problems in teaching basic techniques -- is the most important," Max Aronoff stated. "The first question that comes up is, do we have teachers who can give the basic training--men and women who are first-class performers and have had a background of solo, chamber, and orchestral experience, and, in addition, have a genuine conscientious interest in teaching?"

Aronoff stressed the primary importance of developing teachers who are fully prepared to answer all of their students' questions, to demonstrate and prescribe basic mechanical fundamentals and techniques, and "to make the student realize the necessity of these studies and to show him that through this kind of effort and only in this way can he realize the musical goals."

Encourage Orchestral Interest

"There are ways that I think teachers could help students to realize

their most important function -- to make a living from music." This idea was put forth by Anshel Brusilow, who encouraged action to stimulate students to become realistic about aiming toward orchestral careers.

Immediate steps could be taken, he suggested, if teachers would spend part of the lesson studying entire orchestral parts as well as the individual instrumental part. Having students "think" the orchestral parts and having them listen to or play along with recordings of whole orchestral parts would be an invaluable aid, he added.

Right- and Left-hand Techniques

With the intention of simplifying the ideas of a basic technique for guiding teachers and students through the early stages of violin study, Stuart Canin offered notes on the similarities between right- and left-hand techniques. He finds it helpful to keep in mind the fact that both hands operate with basically similar movements: large or smaller movements are executed by like parts of either arm. This similarity of movement is especially important in two main aspects of violin playing, shifting and vibrato.

In shifting, as in bowing the use of specific parts of either arm depends on the distance to be covered. In going from first position to high position, the left upper arm is used. Similarly the right upper arm is used in moving across the whole bow. When shifting half the distance of the string, or when using only the upper half of the bow, the forearm is used. The movements of the left hand and fingers in short shifting correspond with the movements of the right hand and fingers for small bow strokes. The left-hand finger motion for vibrato is similar to the familiar wrist and finger motion used in very rapid *détaché* or *spiccato* stroke.

The Environment and Development

The lack of string players is a relatively new problem among American musicians. Why? Until recently, American string players were not native Americans: they were drawn from the ranks of European instrumentalists. Such was the point stressed by Rafael Druian. He asserted that a study of the environmental conditions which produced and nurtured the European crop of string players might be useful in stimulating string interest in America today, even aside from the obvious differences in social and cultural environments.

While he believes the American public schools are the logical starting place for beginning string teaching, Druian questioned the capabilities of public school teachers and the validity of their methods. He felt the "public classroom situation is the perfect situation from which theory, basic music, *solfège*" -- but not instruments--can be begun. Public school music as it is presently taught--"given an instrument with all its problems and all its difficulties--does more to magnify the reluc-

tance (of students) to participate and to continue."

Druian contended that much of the teaching problem lies, not in faulty methodology, but in the extent to which the teaching of instruments in the public schools is done by qualified teachers. Thus, a professional association of practicing professional musicians serving as a qualifying board to test teaching ability of public school educators was advocated.

Teaching Approaches--Environmental vs. Technical

Broadus Erle introduced another point for debate by discussing the Suzuki method of teaching violin and describing the Toho Academy of Music in Japan. He advanced the Japanese environmental approach to teaching string instruments as opposed to the technical approach and described an experimental class begun recently in Guilford, Connecticut.

This cultural-environmental method stresses a solid musical basis in theory, harmony, and solfège before young children are introduced to musical instruments; in it, music is promoted through the home and social environment as well as through direct methods of instruction in the elements of music. The approach attempts to "build up a full environment" and to "create a need to communicate with each other musically." Given this background, Erle holds, the students can be taught to "sound good" when they begin instrument lessons, and good technique follows. But the stress is on capturing and holding the student's general interest and creating in him a need for music as a basis on which later technical ability can be built.

SECOND SESSION, August 19, 1963

Session II speakers concentrated primarily on techniques and on aspects of early training. First, however, moderator Richard Burgin touched on "the importance that 'economics' plays in the art of performing music." The problem of the string shortage begins, he theorized, with the need to distinguish clearly between the amateur performer and the professional. Young children begin playing instruments as amateurs; when they begin to devote additional time to practicing they are still participating in music as an extracurricular activity. Then a decision must be made--usually by the parents for the child--whether the child should pursue a musical profession. Obviously, at this stage the number of professionals, as distinguished from amateurs, diminishes.

Another element which complicates the issue is the dual nature of music as an art and a science. The art of music, Burgin noted, cannot really be taught. However, there is much room for perfecting the teaching of the science of performing. For Burgin, "the improvement would consist primarily in shortening the period that is necessary to make a person a master of his instrument to such a degree that other people will be willing to hear him because he gives them that much pleasure and enjoyment."

Satisfaction in music is achieved in different ways by different people. Some desire to be virtuosos, others are active in playing chamber music, still others teach, and some play in orchestras. "The really fine musician," according to Burgin, is capable of playing in an orchestra, playing chamber music, and teaching, but is also a virtuoso on his own instrument when he is called on to play solo.

If this set of achievements is unrealistic, at least part of it could be attained, he felt, by improving the present system of teaching and the economic situation, as well.

"Harmonic Thinking"

Early in his teaching career, Samuel Gardner noticed certain deficiencies common in the playing of many advanced students. Deducing that their faulty intonation stemmed from poor elementary training, he began investigating ways to correct their faults. The result was what Gardner calls a "feeling of fingerboard harmony" or "harmonic thinking."

Since methods using approximate measurements for finger placement are inaccurate, misleading, and physiologically harmful, he said, the student should start the basic finger placements with the help of the fundamental harmonies. The fingers should not be kept down any longer than the rhythmical values of the pitches. Each finger should be trained to achieve independence in finding pitches by training the ear to guide the fingers. This is best done by relating fingering to chords.

Gardner stated that these tested theories have helped students to achieve vibrato more readily and to avoid cramping the left hand, a problem which often arouses a sympathetic reflex in the right arm. He encouraged the hope that the conference would be "the beginning of a campaign to analyze the problems which are the result of the fallacious methods practiced so universally, and to encourage top-ranking musicians to participate actively in a definite program of correction and rehabilitation. It is up to the teachers," he stressed, "to see to it that the instruction given to beginners is correct and thus to assure the growth of a reservoir of good instrumentalists from which the orchestra can draw."

Economics and Other Issues

Sidney Harth began his discussion of the over-all problems by reminding his audience of another distinction which must of necessity be made within a group of musicians composed of players and teachers. "I think that we have forgotten, so far, in our addresses, that we are speaking on several different levels," he stated.

Harth suggested that while many music problems might be settled by musicians taking up where administrators and others have failed, other problems, such as beginning methods, must be left to experts of another

variety. In regard to teaching, he acknowledged the existence of many knowledgeable and stimulating successful music teachers throughout the country, pointing out, nevertheless, that others, who are less capable have contributed to the problems. What should be expected of a teacher? He defined the teacher's responsibility "to develop the best potential in a particular student," adding that in order to develop this potentiality, "the teacher has to give the best of himself."

Considering next the economics aspect of the string shortage, Harth termed it "the crux of the matter." He found the same economic trouble in other social and political systems as well. However, elsewhere the solution is supplied in part by government subsidy for younger talents, as in Europe. Harth advocated further subsidies in the United States.

Harth emphasized the importance of encouraging individualism in students but advocated orchestral experience for aspiring young soloists as well. He suggested that a solution to the economic problem lies partly in increasing the number of highly rated symphony orchestras.

"Moderate" Talents

Louis Krasner's emphasis lay on the need to help less talented young people who, with proper guidance and good instruction in basic techniques, could satisfactorily supply the growing demands for musicians in smaller symphony orchestras and schools across the country. The hub of string technique is the bow arm, and generally it is the source of playing problems.

Analysis of the inner workings of the bow arm, he believes, would probably reveal identical inner mechanisms in all well-functioning bow arms. Various bow grips or bow positions have been identified with specific schools of bowing but actually do not necessarily affect the inner mechanisms which are the essential factors. If the "essential factors--those intricate inner workings and combinations of muscles which extend from the shoulder area to the fingertips and include joints, muscles, nerves, and related parts"--could be fathomed, then the defects common to players of all schools of bowing could be traced and possibly overcome or prevented. "If only we could know and understand how the 'right feel' of the bowing arm and hand merely gauges what in fact comes about as a result of precise and specific organization and arrangement of the inner body parts involved!"

Krasner called for coordination of present isolated or independent investigations on technique, and organization of "further methodical research with the aim of clearly outlining an acceptable basic study procedure which would be effective particularly at the beginner and elementary level." If the causes of so many playing problems could be revealed and surmounted, countless numbers of young people dedicated to music could be counted on "to assume serious responsibility in the development and enhancement of the nation's cultural life."

Teaching the Essence of Music

Music as a language--an artistic form of communication--means for

William Kroll that "the learning of music must be akin to the learning of spoken communication." The student must begin with simple phrases--in terms of music, with solfege, simple counterpoint, and harmony. Creation of simple tunes should be encouraged.

Kroll promoted the playing of simple chamber music as an ideal way to begin early training, one which is too often lacking in the musical instruction of today. It makes young students realize that they are one part of a larger whole, and it teaches them intonation, phrasing, and how to listen. In addition, he noted, chamber music includes some of the most beautiful, profound, and inspiring music written. Playing with others, as in a chamber ensemble, does not stifle individual talent, he stressed.

Attracting "Young Audiences"

Theo Salzman briefly brought to attention a musical adaptation of "bringing the mountain to Mohammed." Since not only a lack of string students but also a dearth of first-rate teachers on the highest level exists, one successful method of attracting the attention of and encouraging young children is through such means as the "Young Audiences" program begun in New York and the "Gateway to Music" program of Pittsburgh. Groups of top-grade musicians--chamber ensembles and string quartets--visit public schools in the classroom and in school assemblies, playing for the children, explaining the instruments, and demonstrating how to play. More of such programs would, Salzman felt, help to fill the gap left by the shortage of top-notch teachers. Such programs should be increased, he said, "because they are a way of showing children who do not go to concerts that string playing, in spite of all the difficulties, has beauty and can be understood by anybody."

THIRD SESSION, August 19, 1963

In opening the symposium, Erich Leinsdorf had expressed a hope that the speakers would refrain from debating one of the largest problems facing string players and would instead concentrate on other aspects of the string shortage which appear to be more readily solvable. It was during the third session that this larger problem--the economic situation--was briefly taken up by George Zazofsky. Also in this final session, questions were directed to the speakers; summaries of these questions and answers along with some from the first session are included.

The Cultural Problem

The decrease of interest in string playing "as shown by the decreasing number of string players of symphony orchestra potential" is evidence of the cultural climate in the U.S., according to Sheppard

Lehnhoff. Excessive parental permissiveness, the idea that learning must be "fun," and overemphasis on scientific training in the era after Sputnik all have contributed to this problem, he theorized. However, the same changes in the values of social objectives that have created these disturbances have had a positive, advancing influence as well on music teaching methods, and so he envisioned help for the problem in improved techniques in string instruction, an increase in leisure time, and a new interest in "do-it-yourself" music.

"A concerted educational effort" to make the public aware of the professional musician's role and actual status also would be a step toward the solution of the string shortage problem, Lehnhoff felt.

The String Player in the Orchestra

String players in a symphony orchestra have certain problems of execution in ensemble which they must learn to recognize and remedy, just as they must recognize the execution problems of the other kinds of instruments around them. Henry Siegl found that young string players in the symphonies are often confused about or unaware of the production of the proper sound to be made by the strings in relation to the total sound produced by the orchestra. Their lack of "proper leverage or economical means of producing the sound" results in "a thinness of the quality simply due to rapid use of the bow instead of daring to use concise, good strokes," he noticed.

Not only must new players be taught how to achieve the desired sound and amplitude, but conductors must be cautioned so that they will realize the maximum potential of their violin section in relation to the number of performers and the acoustics of the music hall. Flexibility on the part of the string players when their parts must be corrected or renoted, and understanding on that of the conductor are required for maximum good results from the string section.

Siegl called for more training orchestras to be guided by people who are knowledgeable about the needs of budding orchestra players. Professional symphony orchestras should assume the responsibility of providing training orchestras, he proposed, since they will benefit from an increased number of candidates for professional positions. Furthermore, the major orchestras should not be afraid to fill several vacancies annually with beginning professionals who are good but not quite ready to fill these positions.

"In Seattle, we tried this," Siegl stated. "We had deliberated, and decided not to sign a contract but to try out a couple of the youngsters who were very good and almost ready. We let them play under fire, let them attend the rehearsals; it didn't take long before they had gained the experience which we wanted. After all, to be honest, how far below the standard of a given section in a major orchestra is that youngster who is being denied the job? How far below the weaker members of that orchestra, also?"

Siegl called for orchestras to encourage young players who demon-

strate talent but not the desired experience, and to keep in mind the idea that "there are other factors besides the playing ability. There isn't a sure selecting method for the proper candidate," he reminded.

The Economic Problem

Like others before him, George Zazofsky first found it necessary to define the territory of the string shortage, limiting it to "professional, first-class" string players. He cited the steady increase in the number of amateur musicians, and stressed the concern of many with the growing inability of Americans to distinguish between the two groups.

Tying in with the increase in amateurs and decline in professionals is, he believes, the problematic economic situation which discourages people from choosing music as a career. In fact, he pointed out, the U.S. Department of Labor's 1961 "Occupational Guide Outlook Handbook" sets forth an outlook for professional musical careers which would discourage parents from planning such a career for their children.

That the present problem will expand even more in the future is borne out by a Ford Foundation study, he said. "In 1957, the Ford Foundation ... undertook a five-year study on the subject of the state of the creative and functional arts in the United States. ... One of the findings is that there definitely is a shortage of first-class string players--indeed, of good string players, not even first-class, but good string players.

"It states further that four or five orchestras like the Boston, Philadelphia, and New York symphonies will have no difficulty in the immediate present filling vacancies in the string section. However, the method by which they will replace these people bears scrutiny. With what these orchestras have to offer in pension benefits, annual wage guarantees, major medical plans, they are in effect raiding the smaller orchestras. It's only fair to assume that if this process is going on then quite soon the reservoir from which the big orchestras obtain their first-class players will be depleted. If something drastic is not done to alter this course of events, very soon even the big ones won't have any smaller orchestras to raid."

Zazofsky warned the panelists to avoid suffering unnecessarily from a false sense of guilt regarding their ability as teachers. "There is enough good pedagogy," he said. "Teaching has never been better." He cited instead the need for "live, warm-blooded human beings who have special talent" for these pedagogues to influence.

Questions

Questions directed from the audience and from the moderator to panelists following the first and last sessions covered additional aspects of the problems discussed: the questions dealt primarily with

teaching techniques and methods for encouraging young aspiring string instrumentalists.

Asked the best time for a child to begin learning a bowed instrument, Samuel Gardner said his experience with children in the schools had shown age eight, in the fourth grade, to be the most practical time to begin; but, he added, "age is not so much the question as the good teacher." Rafael Druian reinforced the advisability of introducing children to musical principles rather than confronting them first with an instrument "so that sometime, through their adaptability to basic musical terms, a selection can be made as to whether or not they should continue to participate."

Queried on the amount of time the child should practice, Broadus Erle pointed out that not the matter of time but rather the practicing habit is important. He listed his beliefs about sound attitudes toward the string instrument: that practicing should be logical, passionate, and always "a concert performance"; that the student is his own best teacher, and a good teacher will teach his student to teach himself; and that students should also help each other.

Erle described a pressure system in which a student is given fifteen minutes during class to learn a new passage and to play it before his classmates. This "pressure method" gives the student an opportunity to learn, practice, and play unfamiliar music when he is nervous and under stress, and the student "becomes more sensitive to the musical and technical challenges." It serves also to establish good techniques which become good practice habits when the pressure is alleviated, he said. Favorable results from the "pressure system" have been amply demonstrated with his students, he added.

On the question of the approximate number of hours a student might spend practicing in order to attain facility and mastery of his instrument over a three-to-four-year period before becoming a professional, Joseph Silverstein estimated an approximate total of twenty hours a week. Most of his students on that level, he said, are involved in a full-time university curriculum with limited practice time. "With intelligent guidance, and intelligent practice habits, and with a stripping down of the many nonessentials in the repertoire, they're so eager to play that this twenty hours a week can be more than adequate for them to accomplish the end that they are after," Silverstein said.

Regarding the essential knowledge of the string player, Stuart Canin and Sidney Harth's disagreement pointed up the problems of the university curriculum for music majors. Canin said "yes" to the question of whether the young professional should have a working knowledge of harmony and counterpoint, but added that he was "not of the opinion that one has to study for a year or two in the conservatory." He felt, too, that the shortage of string players "comes from people not practicing the violin." Harth, who called for "general, all-round musicians," felt that the shortage stems "from the fact that they don't know enough about all kinds of music."

Joseph Silverstein, however, pointed out that the responsibility of the instrument teacher grows because students no longer can spend

extensive amounts of time in a conservatory "being steeped in the traditions of solfège, harmony, theory, counterpoint, elements of music and such." Thus, the instrument teacher must broaden the student's horizon by incorporating harmonic thinking and theory into early lessons.

Another question on the curriculum for aspiring symphony players dealt with the study of contemporary music. Anshel Brusilow recommended that the classic repertoire be studied primarily; most orchestras, he said, devote attention to modern compositions in rehearsals, but expect their players to be grounded in the classical works.

On the problem of discipline in order to create an atmosphere for string playing, Druian warned against overemphasizing "fun directed" study. He felt that discipline could very well be conducive to the enjoyment of learning--"accomplishment of any major result ultimately is fun"--but also that "what we must learn is that we have to pay a price for something. You can't be the so-called all-American boy and also excel."

Why do not young people who have started their careers in music want to go into the symphony orchestra? Joseph Silverstein theorized that symphony orchestra positions are not made to seem attractive enough. Further, a child taught in a strictly soloistic fashion finds it crushing to have to play as only one member of a section. Silverstein was not discouraged, however, about the need to attract more young people to enter orchestras, having found that young orchestra players retain a great stimulation which sustains their interest even despite low wages and sometimes poor working conditions.

Another problem regarding orchestra members prompted the question, what can be done about stimulating the older musicians? "The professional musician, the professional player, should become involved to a far greater extent in teaching, in analyzing the methods of study, and in the discussion of teaching methods" was Silverstein's proposal. Both the professional player and the students would benefit from such an expanded involvement, he felt.

A question on the use of early teaching materials prompted a critical remark on the quality of string teachers. Asked whether teachers could use standard teaching materials, such as the complex Kaiser etudes, imaginatively instead of demanding new materials, Silverstein said the problem lies in finding imaginative teachers who realize the inadequacy of these materials and can create new exercises from them. Hence he favored a new literature designed to provide instructors with materials that suggest a larger perspective to the student.

To this final question, Stuart Canin added a note of warning. Because of the decentralization of music study, with teachers widespread throughout the country, he advised parents and advisors to exercise great care in choosing music teachers. He emphasized the problems which can be caused by public school teachers who, without adequate preparation, so often teach strings to beginners.

Conclusion

Thus the first Tanglewood String Symposium drew to a close. Many ideas had been put forth, ideas which would be taken up at greater length and in more specific detail in the following year. But disagreement was the stronger tone that characterized this exploratory session, and few real solutions had been gathered together. Erich Leinsdorf again recognized the amount of work that remained. "We have got to get some sort of code of action," he said. But he continued to warn against jumping at overly hasty or vague attempts to solve the problem: "These general cultural crises we cannot solve by 'fiery appeals.' I would not feel that any specific criticism of the Establishment in teaching is going to do any good. . . . Our problem here is one of persuasion through authority, good will, and knowledge.

"Now I purposely want to go slowly, because I want the String Symposium next year to go a step further by seeing what we have produced and then continue it. We first must get the youngsters to want to study; they must have the right background before they start; and when they start, they must go as quickly as possible to something that will interest them. We can make them last beyond that first year."

Leinsdorf's immediate plans included assigning topics for the next symposium to several panelists. He asked Lehnhoff and Erle to produce a paper on the role of the family who decides to start a child's study of an instrument, Siegl and Druian to write on the preinstrument training necessary, and Krasner to contribute a paper with musical examples which would put standard study materials into an over-all perspective of the music written in the past century.

"I said at the opening exercises of the Berkshire Music Center," he continued, "that we are performers, and as performers, we can exert a needed influence upon the musical life of this country. . . . I want very much to come out of this meeting only the absolute constructive suggestions which you have to make. I hope in future years that we will carry on from where these contributions leave off." Although his specific assignments of papers were not all to be carried out, Leinsdorf had set the theme of the 1964 String Symposium and defined the goals and task of its participants.

be an adventure rather than drudgery."

The final prefatory remarks were made by the chairman, Louis Krasner. He placed before the participants their possibilities for helping find solutions to the string problem, through the symposium, as well as their responsibility to do so. "It seems to me that the string problem is a sort of growing pain--a symptom of the dynamic development of music," he said. "As responsible members of the string profession, we are not privileged to stand aside while history determines the role of stringed instruments in the music of today and tomorrow."

Krasner laid particular stress on educational improvements, quoting Yehudi Menuhin's remark that "the modern violinist must be ... a thoroughly educated and versatile musician--as well as a skilled fiddler." (Menuhin, unable to attend the symposium, sent a telegram indicating that he was "following your concerted efforts to improve and spread our art not only with great interest but with high hopes.")

So the four-session symposium began. The full texts of the speakers' papers are given here; they are classified into five areas: social background; early training; status and economic picture; university, college, conservatory curricula and teacher training; and techniques and advanced training. In addition, three short reports follow the prepared papers. Two were contributed by interested observers unable to be present, John Corigliano and Robert Klotman. The third, a selection from the Proceedings of the Fourteenth Symposium of the Colston Research Society, was included because it further states the case for well-trained music teachers who are performers as well, and adds an international perspective to the string education situation.

Papers were presented at three sessions; the fourth was a discussion session at which the audience contributed their ideas and a panel discussed outlined topics. The fourth session summary also contains suggestions brought up in discussion periods during the earlier meetings.

I. SOCIAL BACKGROUND

The String Shortage: Social Origins and Proposals—Max Kaplan

The most serious error this conference could make would be to treat the issue as a fact that extends only into and through musical life. On the contrary, the theme has variations in major and minor keys that can be developed from numerous motifs of social change since the First World War and the ceasing of large-scale immigration.

Even to conceptualize the phrase--"shortage of strings"--suggests many relationships to the whole range of American life. Do we, in fact, have a shortage of strings in respect to a well-anticipated minimum that was established by some consensus a decade or two ago? Is there, rather than a shortage of strings, an unexpected surge of demand, brought about by the expansion of musical life; and if so, should a minor dirge not be a chorus of national celebration?

There is no point in dwelling on history, for a yearning for the simple past cannot void the complexity of the present. Yet I would

point out that many of us, now in our forties and fifties, grew up as violinists because this was, to our energetic parents, a symbol of Americanization. We were sent to private teachers, and worked through Kreutzer, Fiorillo, Rode and, of course, the Mendelsohn, as Mother kept the windows open to impress the neighbors with us and us with a rising aspiration in life. Against our will and sense of decent manhood before the judgment of our street peers, we even learned to like this music, and a new world did enter those open windows--a world that took us far from the one familiar to our parents. But aside from the parental needling that kept the bow rosined and a memorized piece on tap for the relatives, we had no TV sets to attract us, almost no radios, no cars, few telephones, and only a few nickels in our pockets.

This, I say, cannot be brought back, for the changes in the time of our children and grandchildren have been profound and irrevocable. Vast megalopolitan areas have sprawled out. Wars have been suffered. Men and machines have been hurled through space and to the moon. Education for the masses has reached its apogee in the multi-university. Affluence has become commonplace. Government, business and labor have turned into giants. Minority groups became assimilated, often to lose sight of their pluralistic values; their sons became lawyers, doctors, businessmen and professors. And the average American home that in our youth hardly afforded the phone now has enough electronic gadgets to equal the muscular energy of ninety male servants.

It is not a wild observation to say that all this contributed to the shortage of strings, just as it did to higher divorce rates, more crime, more working women, international tensions, personal "alienation," the growth of suburbs, or the singing commercial.

Nor can a conference seeking solutions or approaches to the supply of string instrumentalists be a significant occasion unless the future is put into the agenda. Permit a few projections that may be pertinent to the discussion. Even now, in 1964, about 40,000 workers are losing jobs because of automation every week. Whatever the presidential candidates may want to say, or be permitted to say in the general climate of opinion, our welfare, public works, and federal aid to work retraining and general adult education, to the arts and to other meaningful uses of nonwork time will expand in the next decade. The naked fact is that our new technology is now not only capable of killing faster than we can give birth, it can also eliminate jobs faster than new work can be created.

The ever-longer bulks of leisure time, especially for the unionized industrial worker, will crystallize and pinpoint the kinds of experiences he seeks; more community and commercial alternatives will be opened to him; and by the year 2000 A. D., the average family will have over \$ 14,000 a year to spend (based on prices of the present). In the St. Louis area, for example, the projection is that such activities as fishing, picnicking and travel will expand by fifty times, as the workers of that area will have a quarter of a year more free time than

they have now. In a recent conference of the Missouri Arts Council, I raised the questions, first, whether we in the arts have thought into the future as carefully as have the experts in outdoor recreation, and second, whether we are making the same systematic preparations as they are to meet the needs and goals of a creative mass culture.

The art world has a stake in that future. For the mass culture, in spite of the epithets that are now fashionably hurled at it by Dwight McDonald, Pitirim Sorokin, Louis Kronenberger, T. S. Eliot, and others, has provided an accessibility to the finest of the arts by a new, broad social base. It would be naive to overlook the justifiable concern over the vulgarity, mediocrity, conformity, "mid-cult," and "waist-high" culture that are widely in evidence and will continue; it is equally short-sighted to downgrade the enormous vitality that is evident in all parts of the country, in the schools, in the communities, in literary discussions, in festivals and workshops, in foundation thinking, in new art centers, arts councils, governmental participation and international exchange. Their interest indicates a realistic confrontation with the mass culture of our times, alongside the subjective celebration in some camps and the criticism in others. The confrontation, for our immediate purpose here, must advance from several guiding principles that build on the strength of the current scene, then move into concrete proposals.

The first principle is one that is technically important from an aesthetic view but also provides a continuity from the past to the future, namely, that the goal of a string movement must be toward the cause of chamber music. This would rectify the fundamental mistake of public school music. Its political origins, dating from Boston in 1838, emphasized music for every child; it is a gross distortion to assume that this should mean either music for large groups, or every child on the stage, or a band on every fifty-yard football field. Only now, after a long period in which school directors felt impelled to be miniature Goldmans and Leinsdorfs, is there a feeling that band and orchestra, however valuable and necessary they may be in the formative years, must be supplemented, indeed, preceded, by the discipline and aesthetic nourishment that only chamber music making can provide. This has been my advice recently to the Canadian music teachers, to begin their instrumental movement with the goal that our own institutions are just approaching. We will obtain better string players by raising standards in the school, not by involving more students. And string quartet or ensemble coaching, whatever other values it has, will demand better musicians, for then they cannot hide behind the baton or in a dilution of tunes from South Pacific.

The second principle is that our sights must go beyond the needs of the professional, major symphony orchestra in planning for the strings. No more can the destiny of the professional and the dedicated, skilled amateur be neatly distinguished. A large proportion of the more than 1,200 symphony orchestras now contain both. Indeed, as a forthcoming

issue of the important journal, Arts and Society, will note, even these familiar terms are long overdue for radical reconsideration embracing psychological, social, and aesthetic factors as well as the purely economic.

Third, we must continue the growing harmonious relationship between the professional musical community and the schools, but all resources of the community must be re-examined for their potential usefulness in reaching both young people and adults. By providing adult programs in the strings, we develop a family and neighborhood climate without which the young person is estranged. But even on the level of children and youth, the public schools do not exhaust the vehicles open to an imaginative program.

Fourth, there is need for a massive string program to reach children who are "culturally deprived," whose parents cannot afford musical training, whose homes lack many basic necessities of life, whose aspirations are stunted by ghetto and slum conditions, and whose schools are ill-equipped or inadequate. This refers especially, but not alone, to Negroes. Among these groups we have a vast and almost entirely untouched reserve of creative talent. Although the civil rights struggle is necessarily dominated now by the implementation of the laws and by the change of attitudes toward work, housing, and political rights, it is essential that planning also go on for the content, the substance and fulfillment of a large segment of persons who must, by law and by democratic ethos, soon find themselves in the mainstream of aesthetic life as well. We have a possibility of a significant contribution, to music as well as to the dignity of man.

Finally the approach to the shortage of strings must move in many directions: there is no one formula or solution.

With these introductory comments as a base, I move to more concrete programs. If we itemize a chronology of elements that enter into the production of a good string player from childhood to maturity, we have:

1. The interest of parents
2. The early interest of the child
3. The commitment of school officials
4. Good teachers and teaching programs
5. Maintenance of the student's interest through late adolescence
6. The student's choice of career
7. The university or conservatory training
8. Training orchestras and musical experiences between the school and professional activity
9. The family situation of the mature musician
10. Steps involved in professional admittance and membership.

All of these items are important and need close attention. Here I select only a few for direct comment.

(Item 1) The interest of parents, especially of younger parents now found in many suburbs, may best be obtained by involving them directly in making music. Family performance groups can be established by cooperation between schools, adult centers, recreational departments, and community or settlement music centers. These might be centered on the playing of recorders, on combinations of instruments, or on singing. Suzuki has demonstrated this point with violin lessons for mothers. The increased nonwork time among adults is a favorable factor. The recreation movement is itself looking for a philosophy and technique to use more of the arts. Since one characteristic of many large housing projects is the development of self-governing educational and cultural units, urban renewal and housing leaders are open to ideas. Television, private as well as educational, should be approached for special courses or programs on family music making.

(Item 3) The interest of school officials is directly affected by an expression of interest from parents--for string instruction as well as for science and other areas. But parental action must be organized. Musical associations have published fine statements, but they have not moved on the grass-roots level through the local power structure based on parental conviction and action.

(Item 4) The crucial matter of finding and using mature string players as teachers is related to the teacher training curriculum, of course, but also to strategies by which performers can be brought into the educational community over the "dead body" of excessive and often unrelated courses leading to college degrees. For example, we need to devise a program to prepare musicians directly for college positions; there is no such curriculum now, according to the research of Dr. Lee Chrisman of Boston University. (In my own case, I spent a quarter of a century on university levels, never taught in other schools, but sat through courses on how to teach the rote song and the eighth note to primary grades.) Ways are needed to grant credit to the mature musician for his working experience, and to provide an individualized internship to qualify him for the teaching certificate. Emanuel Amiran, Minister of Music for Israel, does precisely this, and allows no music to be taught, even in the early grades, except by musicians. We need ways to utilize the services of good string teachers who do not fit into the academic environment, whether by personality, desire, or other commitments; one way to do this is to bring the talented student to the community music school. Here, with fees based on ability to pay, we have a long-established type of institution with high standards and which embraces private and class lessons, theory and history, and chamber music experience. Public school administrators might be approached to release students during school time in order to attend these schools and to accept grades for such time if credit is given for music work.

Settlement or community music schools are often located in the underprivileged areas of the city, by virtue of their philosophy and history; they might therefore serve as central agencies in reaching Negroes and other minorities. The local Urban League, Jewish Centers and YMCA are useful when no community school exists. The

Higher Horizons program of New York has lessons for other areas in the utilization of many community resources for the underprivileged.

(Item 5) As students enter late adolescence, they become cognizant of the other sex, their mental horizon reaches out quickly, they rely increasingly on control through their peers, they wean themselves from parental authority. Yet, my close association with the Greater Boston Youth Symphony Orchestra suggests that in such groups we have at once a musical instrumentality of the highest potential and also a social tool that satisfies the need for status, sociability, and excitement. Marvin Rabin, since he brought to the Boston group an insistence on musical excellence as well as a sympathy and understanding of young people, has found no lack of talented and serious members. Many such orchestras are to be found across the country. They could, in many cases, use consultations, funds to commission new music, scholarships for private lessons, important instruments, festivals and summer sessions. A journal has recently been started in California for youth orchestras. There is now a need for a more general music journal designed for music students between the ages of twelve and eighteen.

Together with such moves there should be a bold program of survey, research, and publication. First is needed a compilation of opinion and empirical projections into American society of the next several decades, such as have been done by agencies of the Congress, the National Commission on Goals for Americans, the Twentieth Century Fund, and other agencies. These broad documents need to be interpreted for their meaning to the arts. The forthcoming study by the Rockefeller Foundation and the Twentieth Century Fund on the economics of the arts may hold some clues.

We need to encourage sociologists who specialize in the professions to examine the career stages of the musician, especially to serve the purposes of guidance counselors.

We need careful case studies of successful school string programs; we need more experimental films on class violin instruction, such as begun by George Bornoff. Visual aids and tapes are needed for seeing and hearing how sample passages are played by leading artists, or the musical consequences of different fingerings and bowings, or the methods of teaching by masters in their own studios.

We could utilize the resources of a daring university training department and several bold high schools which would agree to start from scratch with music training methods and with establishing relationships with the community.

The next step, in my view, if this conference is to come to grips with the issue, is to bring together a working session of representatives from organizations already active in the string area, and including persons from the fields of education, the social sciences and the mass media. Their work would be to assess all the suggestions that come out of this conference and other sources, to affirm a philosophy, establish priorities for action, and establish a continuing liaison to implement the total program. The executive staff would in the course of time pinpoint

gaps, refine procedures, work closely with specific agencies, call upon foundations, cooperate with Lincoln Center and with local and state arts councils, assess resources, evaluate results, and report back to a general Tanglewood conference.

In the largest sense, the string shortage, like all other aspects of musical creativity, stems from basic values and directions of American life on the whole. Thus, by moving ahead on this problem, we contribute to the aesthetic and cultural climate of that whole, creative America.

Developing Greater Family Interest in Stringed Instrument Study and the Role of the Family—Sheppard Lehnhoff, Chicago Symphony Orchestra

The subject of "Developing Greater Family Interest in Stringed Instrument Study and the Role of the Family" has many facets. When I was asked to prepare a paper on this subject my first reaction was concern on how to approach it. I think the questions raised by this topic require approaching each part of the title as a separate subject. I firmly believe greater family interest can only be developed successfully when the climate is conducive to making more families interested. I also feel that an examination of the relationship between teacher, pupil and parent is relevant. Once these two things are understood, the role of the family clarifies itself.

We are aware that in any area where education of young people is concerned, family influence is a powerful factor, even when it seems to be absent. When family participation takes place, the course of events is more easily discernible. What the family wants to do, thus will the child. A friend of mine, who is a sociologist, recently called my attention to an article dealing with what the author called adolescent subcultures in an industrialized society. In this article he pointed out a seeming cleavage between values of the adolescent groups studied and the adult world, as represented by parents and school. Eleven high schools of various types were studied: coeducational, parochial, private, and public, ranging from slum areas to upper-class suburbia. The concluding suggestion of this article was that scholarship should be elevated to the standing that athletics and popularity enjoyed among the young people surveyed. The most interesting fact for me was that in every case, these young people reflected the tastes of their elders in the choice of their goals, even though their elders felt they were unable to influence these youngsters. In other words, where education and scholarship were most valued among the parents, the adolescents regarded these more seriously as desirable goals.

Generally speaking, the beginning of the average child's musical education in this country is a rather haphazard affair. Most often, choice of instrument and teacher is the result of chance; sometimes, of deliberation. The average child is introduced to his first active musical experience in the nursery school or kindergarten by singing games, and possibly some group singing during school hours. Let us

put aside for the moment the musical sounds he gets at home from radio, television or phonograph. Not until third or fourth grade, or at about the eight- or ten-year level, does he get any instrumental training. Even here, the level and type of instruction varies considerably from one school to another.

As an illustration, I should like to mention here what is offered at four schools of my own home neighborhood--three private and one public. All four have high scholastic standing. In the first, class lessons are offered on most band instruments by men who have had experience in class instruction. If sufficient interest is generated in the children, these men give private lessons on these band instruments even though the instruments in question may not be their own major. At the second, a visiting piano teacher comes in once a month, plays for the children and tells them something about the pieces played. The choral singing is taken care of by weekly visits from a singing teacher. At the third, children receive twenty-minute weekly private lessons on the instrument of their choice, and after one or two semesters are inducted into small orchestras of different grade levels. The teacher here is a public school music major. At the fourth, a choral director from a neighborhood church leads weekly classes in choral singing.

What causes the desire for musical instruction? Parents may want their children to have advantages they themselves did not have. They may feel that musical instruction is a part of a well-rounded education. Possibly, they consider musical education for their children a kind of status symbol, to enhance their own social standing. All this may be possible, even though the parents neither play, sing, nor attend concerts. Children may genuinely like music and want to play; they may be stimulated by a friend's studying the instrument of their choice; or they may like what they hear on favorite records.

How is the teacher chosen? Sometimes by recommendation of a neighbor whose child may be studying with the teacher in question, or the suggestion of an informed person. The reputation of the teacher or of a neighborhood music school or conservatory, or listing in a telephone directory or newspaper ads may also be factors.

Once a child undertakes musical education, one of several situations may develop. If the child has parents who are interested in music and enjoy playing, the child will more willingly accept musical instruction as part of his education. Family chamber music sessions are a tremendous help in keeping the child's enthusiasm alive, after the first excitement of the novelty has worn off. If, as is most often the case, the child wants to learn without working steadily, the parents can help by encouraging, stimulating, pushing, nagging and bribing. I mention this last tactic, because I know of one case where friends resorted to this. The bribee is now studying seriously for a professional career at an eastern music school. I know of another case where parents pinned their daughter's dress to the piano bench. She is now a leading piano teacher in her home and neighborhood. Another useful tactic, which we have found to be very successful, is the enlisting of an older and more advanced student, generally not an older sibling, to assist in the

practice sessions. We have found that children are more willing to accept criticism and guidance from their peers than their parents, unless a special relationship between child and parent has been set up with the aid of the teacher.

But what happens if the student just does not want to practice and the parents have no experience of their own on which to draw? A running battle takes place if the parents believe that musical instruction should be regarded as seriously as the rest of the child's education. The child continues at the chore of practicing, hating it, if he is resigned to doing his parent's will. Sometimes the child may end up by liking what he is doing when the skill is sufficiently developed for him to enjoy the accomplishment. If, however, he is stubborn enough in his resistance and the parents do not have the will to continue the struggle, the warfare ends in a self-destructive victory for the child. I say self-destructive, because I have seen situations of this type develop, especially where children display pronounced musical talent. This last description is apt when such children fight their parents to a standstill. Too often, these children become either the amateur chamber music players of a later generation or the driving parents of equally unwilling children.

Most usually, when a student at the age level we are discussing--say between seven and fifteen--has a problem in his academic school work, the average middle-class parent knows he has one of several alternatives open to him, so he can help his child. He can draw on his own knowledge of the subject, if his memory is still vivid enough. If not, he can refresh his memory by some boning-up. Or else he can call on various authorities in the field--reference books, special tutors, etc. But what about the parent who does not know what to do, and who wants to help, when his child refuses to work at his musical instrument? The answer, I think, can be found in an examination of the pupil-teacher-parent relationship. I feel this is especially important in the case of string teachers.

One of the most important elements I have found in my own experience is the involvement of parents in the musical education of their children from the very beginning. How do we get that? A very important psychological factor is present in that three-part relationship. In the eyes of the child, the teacher has a standing of special importance, apart from that of the parent. In the particular field of instruction, the teacher's word is superior to that of the parent. This is underlined by a little incident involving one of the greatest pianists of our time, whose name is a household word, and one of his small children who was practicing piano. The father objected to what the child was doing and tried to make a suggestion. The child answered, "You don't know. My teacher told me to do it this way. She knows, because she's my teacher."

I believe that parents should attend the lessons of their children during the first couple of months. The parents' presence at the lesson is important to the child. It shows the importance of the lesson to the parent, which has a profound effect on the child's attitude. The presence of the parent in watching and listening is a recognition by the teacher of the parent's interest, which is also a factor of utmost importance to the

young student. That recognition can be a kind of indirect appointment of the parent as the teacher's helper. Such involvement of the parent, even though formerly he knew nothing about the instrument, is a continual reminder of the parent's interest in the child and his education. That is also a most powerful source of encouragement and stimulation. By listening to and watching the teacher's demonstrations and explanations, the parent can get some understanding of what is involved in learning a stringed instrument. He can get some idea of how the child should practice; the parent serves as a reminder and memory recall assistant for the teacher. The amount that a beginner can absorb in a lesson will determine what a parent can remember during the following week. The method of analysis used by the teacher during the course of the lesson should also help the parent in his role of interested observer.

The teacher must remain in complete control of the entire situation during the lesson period. I have found in my own experience that children are willing to accept an understanding that the teacher is the sole judge of what takes place during the lesson; and the parents are, too. The presence of the parent does not mean that he can interfere with the teacher during the lesson. If any questions arise in the parent's mind, these can be answered after the lesson or at a consultation, whichever may be the most convenient. A startling result of this type of teacher-parent mingling of interest has been, in my own experience, a most noticeable decrease in dropouts--practically none in the last three years, when I started this. I must make clear these remarks apply primarily to those children of very young age, from seven to ten years.

Another aspect of this problem requires a change in our attitude as teachers. One of the most frequently made statements about learning to play strings is the difficulty. I refer to a statement in a recent issue of the ASTA bulletin. There a famous conductor said it took two years for a student to learn to play scales properly. Certainly we know the violin and viola require our assuming physical positions not otherwise encountered in our daily activities. Strings require training in listening in the beginning stages demanded possibly from no other instrument. But we as teachers should be able to cope with these demands without frightening the beginner.

Another aspect concerns the attitude expected of a beginner when he seriously approaches the violin. In a conversation recently with a leading Chicago violin teacher, we discovered that all the members of the Chicago Symphony Orchestra who studied with him started out as though to prepare for concert careers as soloists; the idea of playing chamber music came much later in their training. In contrast, it should be noted that when a student takes up a wind instrument, he knows from the very beginning that it will be a social instrument. He will play either in a band or orchestra. In our experience, we find that the social aspect of string playing in the beginning stages of study has been unduly neglected until quite recently.

We know that a noticeable upsurge has taken place in regard to the number of students studying stringed instruments. A most important factor in this situation is the gregariousness of children. Teachers in

this field with whom I have spoken tell me invariably that the interest continues only as long as the group ties are maintained. By the time high school level is reached, the percentage of students who continue to study is very small. For example, in one suburban school system in Chicago, only 35 or 40 are still studying strings by high school graduation time out of the original 300 who started in the fourth grade. We have found that there is no family interest at all enlisted by or on behalf of these beginning students. There is no status in these students' eyes connected with playing strings; there is very little interest in music, outside the classroom.

The fact that there is no status in playing strings seems to me a most important point of attack in considering how to stimulate more public interest in playing stringed instruments. This high school generation now growing up has social values different from those of their second-generation parents. It would be interesting to speculate on the extent to which a changing world, both politically and economically, is responsible for these changed values. The influence of concerted drives to stimulate the acquisition of tangible appliances, such as color television sets, etc., as status symbols, through credit purchases, and the resulting financial strain may also be factors in diverting public interest and family resources away from more extra-curricular education as a primary need for their families.

The parents of these high school youngsters I have just referred to, though born and raised here, were strongly influenced by their immigrant forebears. The status values of these immigrants influenced the education of their children's generation, of which most of our colleagues and myself are members. I can talk only on the basis of our experience. We are all descendants of a generation to whom the violin was a status symbol, regardless of nationality. The question of why the violin was the status symbol of these people in preference to other things would be the subject of a fascinating study. The family pressure was a factor in the continuation of our study in all cases. I have also found that in speaking to all those young professional musicians with whom I have come in contact recently, in the twenty-three and thirty age bracket, family interest and attitude was an important factor in all cases also.

Only a very broad and psychologically sound public relations program can solve the problem of giving value to playing stringed instruments for the public at large. We know that people respond affirmatively to that which is psychologically sound.

We have seen it in the world of politics; we have seen it in the world of art; we see it in the world of entertainment; we see it in the world of literature. Only through such a program will the general public accept the idea that there is status in playing stringed instruments. This public relations program must be directed at several fronts at once.

Music must be made as basic and important a staple of our general education on primary levels as reading, arithmetic and science are now--it must be made a major. I am sure the consideration and planning of such proposals will be discussed in the other papers on the agenda,

so there is no need for detailed discussion here. This would require, naturally, a change of attitude on the part of the powers that be who hold the educational purse strings, i. e., local, state and federal. In our democratic society, that can only come about from an organized pressure from the general public. In view of our present situation, how can we build up such pressure?

Only a thoroughly organized public education program using every medium possible could succeed to that extent. It would have to be as thoroughly organized as any advertising campaign ever aimed at selling a new product. It should be understood that in making these statements I am concerned with broadening on as wide a basis as possible the number of people to be reached. This campaign should be presented in terms of purposes which would appeal to the greatest masses of people, and what it would do for their needs. Only by reaching large numbers of people, such as the Little League idea has been able to influence, will we have a body of students sufficient to furnish the numbers we need. In other words, it takes a lot of milk to produce a lot of cream.

Such a soundly based public relations program would not only have an impact on our affluent families, but would create new horizons for families who are even now striving to improve their status position (what sociologists call "upward mobility") and also would affect culturally deprived families, who are receiving increasing support for activities of this type from increasing numbers of organizations. (It is possible that leading string players of the future will come from this new source.)

Such a program of promotion would require activities in several directions at once. It must be aimed at creating a need for music.

As an apt analogy for what the results of such a campaign could be if thoroughly undertaken, let me mention an encounter which my wife, who is a dancing teacher, had with the Moiseyev Ballet. At a reception after a performance, she tried to find out just what kind of exercises were taught to develop the spectacular technique the dancers displayed. The answer was, "merely ballet barre work." She seemed skeptical, and was invited to a rehearsal and a class preceding the rehearsal. Sure enough--what she found there was exactly the same material as given here. In probing further, she came up with the answer she was seeking. They told her that dance is taught to all children in the primary grades from the age of five throughout the Soviet Union. By the age of eight, talented children are spotted and their specialized education in dance continues concurrently with their academic education. This concentrated dance training is done only with the parents' approval. In other words, they get the cream of an enormous crop.

One of the focal points where the subject of our aim could satisfy a basic need of people is to be found in the concern of human beings generally for the welfare of their offspring, in spite of the drives I have mentioned which are aimed to subvert the primary aims of young people in other directions. We are all concerned with the future--we want to prepare our children with the best education we can give them

so they can face the future with confidence and security. Our future is faced with an entirely new problem, resulting from increasing automation: what to do with increasing leisure, and how to face an increasing emptiness, arising from more time in which to do less.

A little item appearing recently in a news column underlines this. It told of such a very noticeable increase in nervousness, depression and slowdown of comprehension among the workers in West German automated factories that the authorities became seriously concerned. Here is where music can play its role as a truly cultural medium, not merely a social decoration. The increase in do-it-yourself activities among all types of people is an indication of the growing awareness of the need to fill what could be a void. Here is where the function of music as a satisfying do-it-yourself project should be developed in the public mind at large. Music can help in the tremendous task facing us, which Robert Hutchins described so well in a recent newspaper column: the job of being human beings and building an educational system for that task.

II. EARLY TRAINING

The Need, Value and Availability of Expert Training from an Early Age Through High School—Joseph Knitzer, University of Michigan

We are gathered here to discuss every possible reason for the string shortage in the United States and to ascertain what we as teachers can do about it. Perhaps we shall find that the errors that are made by us are repeated time and again throughout the formative years. We cannot rectify the past, but we can see to it that we do not repeat our mistakes. Personally, I believe that in one way or another every one of us is at fault. It does no good for us to wring our hands and point out that the responsibility lies elsewhere. The responsibility for this situation lies with us, and if we are to take the credit for our successes, we must be prepared to admit our failures.

It is not necessary to discuss our successes but it is vital to analyze our failures. We all like to work with first-rate talents, but how many of us are willing to work patiently and give our best efforts to the student with less talent? Many of us in our private thoughts say: "Oh well, he or she will not amount to much, so let's save ourselves for the good students." Quite the opposite is true, and we must work harder and give more of ourselves to those who are less gifted. Very often this less talented student works much harder than the talented one and becomes a good string player. These so-called less gifted students are the ones who will be teaching in the elementary and secondary schools. The better prepared they are for teaching the less need there will be for "re-teaching" when their students go to private teachers.

Many of us, if we are to be successful, must change our thoughts and attitudes about music in the public schools. We are inclined to be snobbish about music education; this is an error that we must correct! We must let these music education students in the conservatories, colleges and universities know that we care about them so that they

will let their students know that they care.

I am very proud to have been the teacher of one of our distinguished panelists, Mr. Sidney Harth; but I am equally proud of having been the teacher of many students who have become fine teachers in the public schools. Their good teaching has been apparent to me because their students have had fewer problems than they themselves had when they first came to me. Fortunate is the public school music teacher who teaches in an area where good private teaching is available so that upon discovering an above-average talent, the teacher can advise private study.

We need more conservatories and settlement schools, such as the Philadelphia Settlement Music School, in the smaller communities in the United States. Even in this second half of the twentieth century we need more pioneers, and it is one of our duties to encourage our students to go to the small communities where they are vitally needed.

We as teachers need to evaluate our teaching. How many of us are guilty of attempting to make our students play in our own image? How many of us insist that our students hold the bow so many centimeters above or below the first joint of the index finger? Is it possible that many of us are too narrow-minded in our technical and musical concepts?

The obvious value of expert teaching lies in the fact that the student need not spend precious time relearning basic fundamentals. What is expert teaching? This is a simple question, but the answer is not simple. In my opinion, there are many qualities that must be present in the expert teacher. Patience is absolutely necessary, and the teacher must expect to have to repeat himself until the student understands what the teacher is talking about. The expert teacher will make certain that the student practices scales in all forms and all types of etudes and will not take this practice for granted. It might be more interesting for the student and teacher to spend all the time on repertoire, but eventually this will only hurt the student.

The good teacher will not always give the student material that is beyond him. This kind of teacher will know when a plateau is reached and that it is necessary for the student to fortify this plateau so that it will not disintegrate in the future. The expert teacher knows that certain material cannot be circumvented. One example is the concerti of Ludwig Spohr. Students of this day do not like Spohr, nor do they see any reason for working at his compositions. The expert teacher knows and explains to the student that in Spohr, in spite of the somewhat dated music, is where one learns to breathe and phrase like a vocalist. The expert teacher is most likely a good performer and through his demonstrations is apt to have the greatest impact upon the student.

However, the education of a music student cannot be the sole responsibility of one teacher. Every music teacher, performer, conductor and music lover whom the student encounters influences the student in ways too subtle to evaluate at that particular time. My first teacher not only suggested solfège, but he also wanted me to be exposed to the sounds of chamber music and the symphony orchestra. All this was done in

one of the settlement schools in Detroit, Michigan, and with the permission of Ossip Gabrilowitch I was permitted to attend the concerts of the Detroit Symphony before I was six years old. I am certain that this procedure was duplicated many hundreds of times in our larger cities and was not considered unusual in those years. In today's society it might be considered unusual because of the vast changes in our economic and social structure.

While this study and exposure was possible years ago, it is possible today, but still only in metropolitan centers where there is much musical activity. What about the opportunities in the small communities--the children from Rutland, Vermont; La Crosse, Wisconsin; Grand Junction, Colorado; Paris, Tennessee--what chance do they have? How many fine musicians have we lost in the thousands of little communities--communities not close to the large cities or to the teaching available in the small colleges or the large universities through their extension divisions? It is my opinion that we as musicians and as citizens of this great country cannot afford to overlook any aspect of the education of the children of our country, be it scientific or artistic.

Since the student from the small community has so little opportunity to make music and even less chance to hear live music, it is obvious that he needs more opportunities for study during the summer. Only in the summer can a child from Centerville leave his community and be exposed to greater musical experiences. There are many summer schools and camps completely devoted to the study of music for a period of two to ten weeks.

Some schools stress the study of the orchestral repertoire; some the practice on an instrument for six to eight hours a day; some combine string study with a little chamber music activity on the side; some with string study and playing in a string orchestra. I personally do not know of any camp or school anyplace where the youngster can have expert teaching, can hear first-rate solo playing, chamber music equal to the best we have in the states, string orchestra playing of the highest quality and an orchestra worthy of being called a great professional orchestra. Where these things are available to the student, the student should achieve a feeling of participation, even if only as a listener.

Many of the schools or camps have one or two of the activities I have just mentioned, but as far as I know, there is no place where all these functions are part of the routine of music study. Where in our country is there a summer study program directed at the students between the ages of six and sixteen? Where is the camp where a child can practice his instrument from four to five hours a day and hear a fine quartet concert or a symphony concert in the evening? Where is the camp where the student can practice all morning, play chamber music in the afternoon and in the evening hear a great instrumentalist play a concerto with a great conductor and orchestra?

This place does not exist at present, but with the good will of administrators and their boards of directors I believe that it is not an

impossible task to create such a summer music school. I do not want to give the impression that the entire school must revolve around these young students. It would be sufficient for a small part of this school to be geared in this direction without any detrimental effects on the school.

I propose the following as a curriculum for summer study: First, from the age of six on, private teaching should be made available to students by the best teachers obtainable. These teachers should have as few responsibilities in other areas as is economically possible. This would allow the teachers to concentrate on the young students.

Second, at about the age of twelve, this student should be introduced, as an active participant, to string quartet playing. This should in no way interfere with the practice hours or lessons on the instrument. The individual practice on quartet parts should be in addition to the work done for the private teacher. Incidentally, I wish to relate to you what happened to me at this very age when I was a pupil of Leopold Auer.

I had studied with him for three years when in May of the third year he suggested that I go to South Mountain for the summer, just a few miles north of Tanglewood, to study at the school sponsored by Mrs. Elizabeth Sprague Coolidge. I had no private lessons on the violin, but the Professor had assigned me enough solo material to last for six months. The chamber music classes with Mr. Kroll and Mr. Willeke opened up new vistas and enriched my musical appreciation to such a degree that I then realized that music had to be my profession. I am still grateful to Mr. Kroll for his ability to open the eyes and ears of this violin student. Fortunately, at that time he did not tell me how difficult it would be to be a member of a string quartet. That I had to find out for myself.

Third, at the age of fourteen or fifteen, playing in a string orchestra should be added to the program of private study and chamber music. In proposing this curriculum, it should be taken for granted that there would be no strict rule about when the student were to go from one activity to another. This would depend upon the advice of the teacher and the ability of the student to absorb further active musical exposure.

If this program of study were initiated in the near future, it would be interesting to all who are concerned with the string shortage to have a follow-up study of the reactions of the students. Was enough inspiration given to these students so that they wanted to continue this program to another summer session? Were they inspired enough to work more seriously during the winter months? Were they satisfied with the musical conditions in their community? In other words, just what effect did this course of summer study have on these students?

Here, at Tanglewood, I see that all the elements necessary for this program are present. The administration is imaginative and has the courage to foster new projects. Will the Berkshire Music Center undertake this project? For the sake of the string situation in the United States I hope they will.

The Value of a Preinstrumental Solfège Program for Young Children and a Design for Its Achievement—Broadus Erle, Yale University

I am sure that nearly everyone who has had any serious contact with music is in accord with the values of solfège if well taught. My definition of solfège is a very broad one and includes not only the naming of pitches and the understanding of rhythm but, most important, the application of this knowledge to physical expression.

The words "music appreciation" leave something to be desired. I would prefer to use the term "musical exposure." I believe in exposing children to all kinds of music and exposing them to high standards--leaving the decision to them whether to appreciate it or not.

Another point in this preamble which I wish to stress very much is the building of an attitude of helping one's fellow students through teaching each other. We all know that by teaching we learn almost as much as by being taught. If this concept is really applied, we also begin to realize, little by little, that one eventually becomes his own best teacher. But he also needs help along the way, not only by receiving but by giving.

The discipline required to practice this kind of concept and to gain a solid knowledge of solfège should be at all times fun for the student. Then, by the time the student is seven or eight or nine years old, he can take up an instrument with multifold advantages. I stress, however, that the discipline itself should be fun.

So then, I would like to be more definitive with some of these ideas as well as to say something about some of our experiments and how these things can practically be accomplished.

Two years ago we started a solfège class in Guilford, Connecticut. When I say we, I mean my most advanced students plus my teenage students down through the eleven-year-olds, and children through the six-year-olds and their parents.

None of these youngsters had had any musical training, nor were any of their parents at that time professional musicians. They represented --and still do--a cross-section of Guilford, which is a town of some 15,000 population.

The first meeting consisted of about ten six- to eight-year-olds and one advanced sixteen-year-old and two very advanced graduate students from Yale.

The atmosphere was very relaxed, and we just sat around on the floor and listened to some records--very unorthodox records for children. (I have nothing against the kind of children's songs that they are apt to learn in kindergarten or in the primary grades. In fact, I highly approve. For our type of class, however, there is no point in duplicating what they might get in school.) As I recall, the selection consisted of some religious music from India, a recent Count Basie recording (played very, very loud), and two movements of an unaccompanied Bach sonata played live by one of my best students. This was coupled with a demonstration of the various colors that a violin is capable of making, and the children were free to ask questions.

The class met from 9 A.M. to 11 A.M., with a long intermission during which pop and cookies were served. I should say here that almost nothing was said about the music that was played. We all just sat around, or rather lay around, on the floor, and listened, oldsters mingled with the youngsters.

I repeat that the record player was turned up very high and that the atmosphere was one of really listening. It was important at the very first session to point out the difference between furniture music and listening music. This not only has to do with an attitude toward listening but also has to do with the type of music itself. Sometime during the intermission of that first day, manuscript books were passed out along with number 1 pencils. Each of my older students and one mother took two children aside and taught them how to write a G clef sign. For some of the six-year-olds this presented a difficult problem in manual dexterity since they were only just learning how to make the letters of the alphabet. However, some of the eight-year-olds learned very rapidly. Subsequently, these eight-year-olds were able to help the six-year-olds. This was an important principle of our whole project, that of applying the theory of helping each other.

At subsequent sessions, these eight-year-olds were able to spend part of their time teaching the six-year-olds during the early part of the morning. Then the eight-year-olds were taught by the eleven-year-olds while the older students taught the six-year-olds. This all happened from 9 A.M. till 10 A.M. Then came intermission, and everyone gathered together in a large group, six-year-olds through advanced students and parents, to listen to recorded music or to live music or demonstrations. There were no problems with the diversity of age groups since music can stimulate one at any age level. This all took place in the beginning and has since become more refined as to scheduling, but the schedule still remains quite free and experimental.

After two years of experimentation, these Saturday classes have expanded to about three and one-half hours. The reason for this is that several of these youngsters have now taken up instruments of their own accord, even with less than two years of solfège training.

However, before continuing with an explanation of our present schedule, it might be good to tell something of our results so far.

Those children who have been with the program for two winters have been exposed to a great amount of music. The following is just a sampling: thirteenth-century Bedouin music; string quartets; all styles of jazz; serial music; Chinese opera; gypsy music; music by chance; Bartok, Beethoven, Ravel, Schoenberg, Boccherini, etc.; electronic music as well as Musique Concrète.

Furthermore, they have had live performances and demonstrations by first-rate artists on the bassoon, viola, clarinet, horn, and (most frequently) violin, among others. Moreover, they have had small lectures and demonstrations by contemporary composers. They have been exposed to ideas, colors, forms and mathematics as an integral part of music. As for knowledgeable execution, they can write tetrachords and scales in any of seven clefs and do it very legibly. They

understand and can write rhythms accurately, even on quite complicated levels. They know how to write a twelve-tone row or a melody. Above all, they are learning to hear. Not only can they discern pitches, harmonies, and rhythms, but even such advanced forms as orchestral colors and shapes. When one little six-year-old girl was asked by a newcomer what a melody is, the immediate reply was, "Oh, it's a mixed-up scale."

Composition takes on such forms as eight-measure periods with dynamics and a climax, scored accurately for whatever instruments are available (anything from a violin to a dishpan will do). Furthermore, the students have a working knowledge of "music by chance." We have several approaches to this, one of which is a card system, where one writes sounds encompassing a certain time duration and dynamic, and then trades it with another, each then performing the other's card. This coming winter we will have a tape machine and we will do some experimenting with electronic music, which should be great fun. By approaching it on a very elementary level, we will be sure that everyone will really understand how it is made.

In discussing results, thus far I have talked about exposure and knowledge. Now I would like to say something about the physical application of this knowledge.

In general, students are expected to perform whatever they compose. This is one reason for the classes being longer now than they were initially (not only performance, but also rehearsal time must be allowed for). If they wish, the children may write something for the adults to play, but in that case they are encouraged to conduct their work.

Conducting is done in 2/4, 4/4, 3/4, or 6/8 rhythm quite competently. However, we stress more the mood that the child chooses to express than the perfection of ensemble. This again has to do with the physical application of their knowledge. For instance, a newcomer six-year-old can learn the G clef and how to write it in one session. By the second session, he can actually write a note, namely G, orchestrate it for six violins or six pop bottles (with dynamics, of course), and have it performed right there and then before his eyes. Obviously, this is great fun. Even if he is just learning to write, he can usually make a forte or a piano sign, or even a crescendo sign. Then, with the help of some verbal explanation, he can conduct his piece. The point is that there must be the primary discipline of writing it down, deciding how it should sound, and expressing it physically. Just one note can be very stimulating for a child if he has had a demonstration of what an instrument can do. A violin, for instance, can play pizzicato or tremolo, ponticello or spiccato, etc. The child must indicate where the pizzicatos are to be played and hence how to notate this. In other words, the beginning of rhythm and how to write it is established!

To get back to the more advanced eight-year-olds of our experiment, they have a considerable knowledge of instrumentation, and can physically apply it to music making. These children then, who have had two years of solfege in its broadest definition, are ready to start studying an in-

strument and, indeed, half of them have already done so.

Having learned something from two years of experimentation, our schedule has been refined considerably. The group meets at 9 A.M., on Saturdays. From 9 to 9:30 the seven- or eight-year-olds teach the younger or less advanced students. We usually split up into four groups in four separate rooms. There are always at least three students from the graduate school plus four or five parents. There are usually about three children to a group. A typical grouping might consist of: a six- and an eight-year-old and an eleven-year-old in addition to the adult teacher.

The first part of the session is usually drill. A six-year-old will be practicing writing the G clef and a couple of notes while the eight-year-old will be writing scales and an eleven-year-old could be writing chord progressions (the adult supervises the entire enterprise). This drill would last only about ten minutes and would be a drill only on things already known. Then for another ten minutes, they teach each other something new.

The eight-year-olds teach the six-year-olds how to write a tetrachord while the adults teach the eleven-year-olds some new things about chord progressions. This lasts for only ten minutes, an important point being that things be done quickly. The adults continue with the teaching of the six-year-olds. The eleven-year-olds then teach the eight-year-olds something about chords, again for ten minutes.

During the following week in the same part of the session, the students will again drill and teach a new thing. The best drill on anything they know is to teach it. Having to be articulate clarifies whatever they are trying to teach in their own minds. Nevertheless, occasionally this part of the session is given over to dictation.

The second part of the session is often devoted to composing something. Sometimes this is done individually, but more often in groups of three. We then regroup the children so that they are with others on the same level of advancement. Everything they write is for performance; they are not free to write at random, but they are allowed to write freely within prescribed limits. These limits vary from week to week; one week the requirement might be to write something eight measures long in the key of C major in 3/4 time, climaxed and orchestrated; another it might be to write a piece lasting twenty-eight seconds. It might be to write a twelve-tone row, invert it and orchestrate it, or to write five measures of "music by chance" to be played by three people. To the novices I might say, "Write one note lasting fifteen seconds and orchestrate it so that it is interesting."

During these two phases of the morning session, each group always has an adult student and one parent. The parents are encouraged to revolve from group to group as auditors. I myself am always a revolving member of the class. I go from group to group and try to coordinate the project of the day.

The intermission starts about 10:15. By this time, the students are usually so involved with their projects that they just make a mad dash for the cookies and soda, then go right back to work. At this time, there

is usually a group looking for the right implement with which to hit a pan. The other students may be tuning violins or pop bottles. It is a heart-warming experience to see three children tuning one pop bottle to a very precise C sharp. It is so surprising to hear how fussy they can be with intonation; in fact, I thought of calling this paper "The Well-Tempered Pop Bottles."

Before the intermission is officially over, rehearsals of the small written compositions have already begun. Everyone gathers into the same room, finally, and the performances take place.

Following the performance there is a discussion, after which we listen to some recorded music that is apropos of what we have done or discussed. There may be a live performance by one of our adult groups, and the solfège session ends about 11:30. The entire schedule is very flexible. We frequently change it to extract the most we can, for instance, from a guest bassoonist.

Eleven-thirty represents not the end but only a second intermission for those who are studying instruments. The other students may go home or remain to listen if they wish. There are several beginners on the violin, and at the beginning of this third section, each is taken for a thirty-minute lesson to a separate room by one of my more advanced students. I circulate from room to room. After this session, they come together for another thirty minutes and play for each other and are criticized and taught by each other during which time the adults try to say as little as possible.

It is such a pleasure to start a child on the violin in this way. He has musical ideas, an ear, and the capacity to read music. Moreover, he has a general concept of how a violin should be tuned, how it should be held, and how it should sound. We hope that when these children are advanced enough to begin regular private lessons at a different time, they will remain as a part of the Saturday morning solfège class. In this way, the live demonstrations could take on more and more the form of chamber music. Eventually we could have a good orchestra.

I must thank the Toho School of Music in Japan for a great deal of the stimulus for this idea. I was on the staff of the Toho Academy for four years. Anyone who has heard any of their four string orchestras knows that they are truly remarkable. We have not taken their preinstrumental solfège as a model, but rather as a stimulant for which we shall always be grateful. I was also one of the founding members of Young Audiences, Inc. We are also grateful for the ideas of Mr. Suzuki of Japan insofar as he has been successful in establishing a parenthood-community atmosphere where music becomes a necessity--just as a language does--rather than a mere lark.

We believe that the best of these examples can be combined, and we are trying to do so--on a very small scale for the time being. Above all, I hope that these concepts and practices can be applied to small communities so as to correct the deplorable condition in which the small town furnishes the talent for the big city, consequently itself being left culturally high and dry.

Lofty ideas aside, we now know that this system really works. If

there is any thought stimulant in what I have said, then I consider my making this report well worthwhile.

III. STATUS AND ECONOMIC PICTURE

Security and Recognition for the Orchestra Player—Henry Siegl, Seattle Symphony Orchestra

One way of eliminating the problems toward which our attention is directed would be to listen to these words of a prominent American composer: "Electronic music does away with the intermediary of the performer. It allows for boundless technical and imaginative freedom and eliminates costly orchestral rehearsals."

The history of our professional orchestras in the United States has its origin in the self-subsidized efforts of musicians doing what come naturally, hopefully for their good. Next came the wealthy patron, later voluntary contributions by the general public and the business and corporate community, and finally, in some cases, the local and state level government help.

Now, about one hundred and twenty years after the very first effort, each of these stages of symphonic evolution is in simultaneous operation somewhere across our land.

This is a confusing and stimulating picture from the orchestra player's point of view. Symphony boards are plumbing their own communities' ability to provide what they know to be best for their citizens. Not all members of these boards brought with them to their musical posts the years of preparation and devotion of, for example, the fiddle player in the orchestra. As a result, we sometimes hear of the individual board member's resistance against adding the federal government's aid to the general effort at home. But should not the properly balanced symphony board recognize the necessity of a properly balanced variety of financial support?

It is even possible that all sources of income have not yet been utilized. Colonel Samuel Rosenbaum suggests, "It would be fair to levy a tax of 1 or 2 percent on users of recordings, the money going into a national fund to support good music. Five hundred radio stations do nothing but play recordings day and night."

Also, I have noted that although corporations are allowed 5 percent of their income tax-free for charitable and cultural purposes, most use less than 1 percent. In 1961, of the 1.7 billion dollars given by foundations, corporations, and bequests, 51 percent went to religious causes, 16 percent went to education, 15 percent to welfare, 12 percent to health. The arts were included in a category known as "others" and the amount given, 2 percent.

To return to that board member who is suspicious of federal aid, I suggest to the orchestra player to interpret that vociferous resistance to federal help as part of that member's adjustment in a strange field; he is more at home in commerce or industry of one form or another where federal aid like subsidies or depletion allowance not only has been accepted but where its continuing use is stoutly defended.

Being a father, in fact for seven months now a glowing grandfather, I see a resemblance of such a board member to his maturing child. The orchestra player can now take heart in the reassuring fact that whereas in 1953 over 90 percent of symphony boards were opposed to federal aid, today, in little more than ten years' time, a majority favors some form of federal participation.

What are some of the other factors affecting the security of the player? After the symphony board comes the union complex--that is, his local; behind it, the Federation; and assuredly not the least, the orchestra committee. From that direction comes evidence of better mutual understanding. Ratification of contracts by the players and then the union is a goal nearly 100 percent achieved.

The union and symphony board relationship is becoming more realistic, and the decisive element, communication. Battles and barges over legal and fiscal matters in sometimes prolonged negotiation periods seem to be a characteristic of our times. They are traumatic but not entirely useless experiences in that more and more light is shed on the most intimate facts and problems of both sides.

Insensitive individuals can exist within any group. However, it helps, let us say, for that unsung viola player in the section to try to understand an aggressive and successful businessman's personal drive--for this may be the very reason he was elected to serve on the board. On the other side of the coin, let us take the board member now belatedly turned music-expert; he should with compassion try to understand the little cello player, the nebuch, who knows only that he likes, together with his colleagues, to play Bach, Beethoven, and Boulez.

In different areas of the country, the young orchestra player will discover changing angles and postures between himself and management and/or symphony boards. The manager has far more latitude and importance in certain parts of the country. This is good! This is a live facet of the American personality. Managers must be encouraged to remain independent and not be strangled by centralization--in New York this time, not Washington, D. C.

The manager has a very sensitive spot in the symphonic body, and the player's acceptance in his community lies to a great degree in the manager's hands. In Seattle, for instance, I feel it most valuable that the press, through our manager's office, carries every Sunday a picture and story about a member of the orchestra--a modest effort with telling effect.

The majority of orchestra players are buoyed and inspired by something. What can we suppose is the reward for this spirit? Perhaps a promise of increasing status and recognition, or perhaps something more basic: they are doing what they want most to do in their home community. In my opinion, it is that wholesome respect and everlasting trust between musician and audience (to whom I direct the constant attention and talents of our friend, the conductor, the remaining and most important source of security for the orchestra player).

And now I commend to everyone concerned with music in America the words of our late President, John F. Kennedy: "When the dust of the

centuries has passed, the United States will be remembered not for our victories or defeats in battle or politics but for our contribution to the human spirit."

Some Implications of the U.S. Department of Education Seminar at Yale University, 1963—Howard L. Boatwright, Jr., Syracuse University

In June, 1963, the Cooperative Research Program of the Office of Education, U.S. Department of Health, Education and Welfare, supported a Seminar on Music Education, held at Yale University under the direction of Professor Claude V. Palisca. There were thirty-one participants in the panel discussions, and thirteen observers. Participants and observers represented all areas of the music profession from the concert stage to public school music teaching.

The resources of this distinguished group were thoroughly tapped by a splendidly organized procedure for meetings. Six main topics were discussed--three during the first week and three during the second. The participants were divided into three groups for the first week to discuss topics one to three, and shuffled around in the second week for the discussion of topics four to six. Each group had a chairman to direct the discussion and a reporter to record and organize the results in the form of a preliminary paper. These papers, in turn, were read at full sessions of the whole group at the end of each week and subjected to criticism.

After the seminar had concluded, Professor Palisca used the papers, and the criticisms of them, as a basis for his final report. This document was mailed to all participants in penultimate form for further comments and finally sent in to the Department of Education for printing by the Government Printing Office. Just as of last week it has become available to those who request copies.

Dr. Harold Arberg, Music Education Specialist, C. A. branch, U.S. Office of Education, who was the government officer directly involved in the planning and conduct of the meetings at Yale, is here this morning and will be glad to answer your questions about the Seminar, and about the government's role in this demonstration of high-level interest in our field.

To understand the possible impact of the report, one has to know how it originated and what precedents there have been for such a study under government auspices.

The original impetus came from the Office of Science and Technology headed by Dr. Jerome Wiesner, Special Assistant to President Kennedy on Science and Technology, and a panel of nongovernment educators and administrators which reported to Dr. Wiesner. The precedent which stimulated this seminar was the Physical Science Study Committee high school course, which was developed under these same auspices and which has enjoyed a tremendous success. If the Seminar on Music Education has even a portion of the effectiveness of the Physical Science Study Committee, then it will indeed be an influence to be reckoned with.

I should like now to call attention to those aspects of the Seminar's report which may have some bearing on the problems discussed here in this String Symposium.

Of primary importance in this report is the emphasis throughout (but especially in Chapter 3) on a wholesale revision and renewal of the repertory to which school students are exposed, both as listeners and as performers. Strong objections are voiced against the use of arrangements. If these objections were heeded, bands would play band music, and ensembles and orchestras would play what is written for them. This, of course, would bolster the position of the string ensemble or orchestra. Only this June, I attended a high school graduation at which the band, consisting of sixty pieces, played a Corelli concerto grosso! The Seminar report in Chapter 5 (Activities and Courses for Advanced Students) makes a specific plea for cultivation of early string literature. Few high schools will have the strings needed for the Tchaikovsky Serenade or the Vaughan Williams Fantasia, but many of them could do a Corelli or Handel concerto grosso acceptably. The problem is to prick the consciences of those who take the easy way out with transcriptions. Actually the band director who led that Corelli performance I spoke of was probably feeling noble for having done such a highbrow piece at graduation. Perhaps he could be made to feel even nobler by having his brass instruments play some Gabrielli, and leaving the Corelli to a string ensemble.

Specific attention is also directed to small chamber ensembles of the baroque and prebaroque period. It is pointed out for example, that the literature of the trio sonata is huge and the level of technical difficulty is low in proportion to the musical values.

In Chapter 2 the suggestion is made that early stringed instruments of the viol family be cultivated because they are easier to play than violins, and the immediate results are far more pleasing to the ear than our scratchy fiddles, which take much longer to tame. I know this suggestion will mean little to those of you who are thinking specifically of preserving the profession of string playing. But consider the importance of establishing a wide amateur base for our art. Anything that teaches a child to stroke a string rather than blow a horn will be in our favor.

For the already advanced young violinist in the public school system, there is the suggestion in Chapter 5 that schools ought to put on more recitals by their own gifted youngsters. Such recitals would be marvelous experience, both for the player and for the other students, whose interest in strings might be stimulated.

One of the most severe problems we have is competition in schools from the wind instruments, which have been promoted so well by the manufacturers, and which in high school life have the glamour of a connection with football through the marching band. While strings can never offer anything to compare with that, more performances by string players in schools can catch the eye and ear of receptive students who might otherwise be unaware of the stringed instrument's peculiar fascination. I saw this point illustrated dramatically in New Haven, Connecticut, where the symphony, under a special endowment, started an

annual series of concerts performed at 8:30 A.M. assemblies in the various high schools of the New Haven area. The Neighborhood Music School of New Haven has statistics showing a rapid growth in the number of applications for instruction in stringed instruments which coincides with the beginning of the series of high school concerts. Many of those children had never had a close look at stringed instruments before, or heard their exciting effect in live music.

The Seminar report acknowledges the need to get more live performances of serious music before students in the schools. It cites the success of the Young Audiences program, and suggests that most communities have not yet begun to utilize their resources of professional musicians. The report suggests that more flexible arrangements can be made to bring in musicians who do not have degrees and teaching certifications but who know their business. An enlightened school administration could overcome the barriers erected by professional educationalists and use local musicians as specialists, if not as regular teachers. The report gives an example: "In very many elementary schools a string class is assigned to a teacher whose principal instrument is not of the string family but who may have studied the violin in a teachers college class for one or two years. It is easy to see that his performance would excite little wonder or ambition in the child as compared to that of a seasoned performer who perhaps is a member of a nearby symphony orchestra. . . . On a higher level, a solo performer might be employed part-time to teach a master-class in the high school or to coach a chamber music ensemble."

Most important of all, the report holds up what seems now a very distant goal, but one which is in no way unreasonable--it demands (Chapter 2.6) that schools work toward the goal that no one teach music in the schools who is not a musician. This, of course, involves giving professional musicians some training in education, and also giving qualified schoolteachers additional and better training in music. Chapter 8 of the report deals with the problems of "Teacher Training and Retraining."

For schools with little or no resources to draw upon, it suggested that visiting musicians be brought from the larger centers for brief periods. It is further suggested that a Performer-in-Residence program be established, modeled on the present very successful Composer-in-Residence program supported by the Ford Foundation. This would be a type of opportunity for an incipient young violin soloist, for example, which has had no precedent in our culture.

Going a step further than bringing professional musicians into regular schools would be the establishment of a number of special schools for the musically gifted, along the lines of the High School of Music and Art in New York and the new Interlochen Arts Academy. We heard last night a reference to the new school in the state of North Carolina which shows that such a step, as recommended here, is very much on the way.

Taking a broad look at the whole Seminar Report, one can say that its recommendations in general point to a musical culture in which

stringed instruments must have a very important place. We know that stringed instruments are central to the performance of the bulk of our standard musical literature. If the quality of music making in the schools is to improve, they need strings, and they need us, the string players, who hold the key. The truth is not that they have bands instead of orchestras because of the shortage of string players; rather, there is a shortage of string players because they have cultivated bands more assiduously. If school music programs are focused on higher musical standards, strings will be required, and they will be forthcoming once a genuine desire for them exists. Perhaps the Seminar on Music Education will have done something to stimulate this desire. Once we have healthy string activity in the schools, we shall have the more gifted students wanting to continue in college and in the profession--i.e., if something can be done to make the profession or orchestral playing more attractive, which is the problem Mr. Siegl has discussed.

IV. UNIVERSITY, COLLEGE, CONSERVATORY CURRICULA AND TEACHER TRAINING

Improving the Standards of String Class Teaching—Samuel Applebaum, Manhattan School of Music

String teaching will produce improved results if enough attention will be given to early preparation of the student. I mean a real course in ear training, to start perhaps during the child's first year at grammar school.

But two difficulties arise. The first involves the educator who is not at all sure that young children are ready so soon. Experiments however, prove that children of three, four, and five years of age can and do learn many skills. Statistics are available on hundreds of very young children doing well in the fields of writing, spelling, creative writing, typing, etc.

The second obstacle is the lack of a course of study which would physically prepare pupils for the study of strings. I mean the muscular control so essential to the development of a good right and left hand. Now, in the light of a new concept of education as a whole, this important developmental phase, so conducive to good string playing, assumes a logical place.

What is this new concept of education? For the past twenty-five years, completely new theories have been advanced as the result of experiments made in our own institutes of cognition. Heading this group of experimenters is a Harvard psychologist, Benjamin Skinner, considered to be the father of programmed education in America.

This revelatory theory of education rests largely on the premise that all learning should be accomplished in tiny doses, with each error corrected before proceeding to the next dose. One dose should not be given until all errors are completely eliminated from the preceding dose. Learning should be done a little at a time; errors should then be corrected. Then proceed again. A little quantum at a time; then, correct the errors. This theory has advanced to such a point that the medical

colleges are embracing it now. Textbooks are being written about it.

A prevalent fear is that the child will lose interest by this approach. Yet, the opposite is true. In the process of learning, children are very insecure. They feel insecure every inch of the way. There certainly is no better way to dispel their insecurity than by this new and logical approach to learning. The benefits of this method will reach into their adult life.

Two processes are involved in learning: first is overlearning; second is individual learning. The first is for efficiency; the second is for value (what the person stands for; the development of his own values.) The two must blend. This idea is from the work of Jerome S. Bruner, "Cognition and Learning."

What is overlearning? It is the repetition of a learned act above and beyond the level at which general competency has been achieved. Overlearning is a thoroughly useful and profitable principle in education, because each time an act is repeated, some inefficiency is eliminated; some aspect of efficiency is strengthened.

A strong exponent of this concept is Lev Vygotsky, a Russian educator. His claim is that there is no repetition in the sense we know it. Every time an act is repeated, it is not an exact duplication or repetition. Something has been improved. In some small way it has improved itself, or we have developed greater efficiency, or ironed out some of the wrinkles. Certainly, this applies to string players when they clean up a shift or achieve more accuracy in intonation.

String players have known this fact for years. As string teachers, we realize that this fine idea in learning and teaching is the best thing that could happen to us. There is no better climate for the development of string technique. If a student is trained to consider this overlearning as the accepted pattern of the learning process, the outlook is considerably improved for string teachers. Development of good string players is inevitable.

The problem is, how are we going to improve the standards of string teaching right now?

First, the school systems must incorporate a course in the grammar schools for preinstructional training. It would devolve upon the vocal teacher to spend some time in ear training (which, incidentally, would improve the standards of the vocal work.) This ear training should include solfeggio. It should be made very interesting to the pupils; thus before they start actual study on an instrument they will have had enough experience in listening. When the student has cognizance of pitch, good intonation naturally ensues.

Second, after instrumental training has begun, solfeggio and singing should go right along with the class lessons. Every line which is played should first be hummed or sung. Youngsters cannot learn to play in tune by learning about distances on the fingerboard. They cannot learn how to play in tune by knowing that the first finger on the D string on a three-quarter violin is an inch away from the fingerboard.

When a method advises the pupil how to place the fingers and gives distances, the teacher should realize this is meant for the first time

only; the value is only in the first few minutes. From then on, the pupil is involved with two matters: (1) development of the kinesthetic sense, and (2) ability to hear the note.

If a child hums a tune, he is much more apt to listen. When a pupil can sing a melody in tune, he will play it reasonably in tune. The new concept in teaching will develop greater patience on the part of the pupil so that he will be less impatient with repetition and will gain a more orderly way of thinking. It behooves the teacher to create these attitudes now.

Watch an enthusiastic gym teacher work with boys. See how he instills pride in their accomplishment of physical skills. A teacher will work for fifteen minutes to produce the correct stance. He does this by (1) instilling great pride for the accomplishment, and (2) showing his own strong enthusiasm for the program. This is what the string teacher, too, must do. When a child can derive pride in his ability to draw a straight bow from frog to as near the tip as possible, this pride will become his motivation. The teacher's enthusiasm will engender this pride. Were this method applied to each basic string study, the standards would become greatly improved.

I shall list the most important basic special studies. These studies should be used regardless of what string method is being used. A specific time should be allotted during each string period for one or more of these basic studies. Ideally, one or more periods a week should be devoted to just these basics. The teacher should skillfully kindle enthusiasm in this work so that the pupils will practice the basics at home. Praise for doing so will motivate them.

The first basic study is for the development of a good bow grip. Special attention should be given to the right thumb and little finger. Holding the bow correctly and doing silent bow exercises will be helpful. Hold the arm up above the head as high as possible with the correct bow grip. Swing the arm freely from side to side, making half-circles in the air with the wrist turning from left to right. Lower and raise the hand from the wrist joint as far as possible--now, from left to right from the wrist joint.

The second basic study is for the development of a straight bow. The object is to keep the bow parallel to the bridge throughout the length of the bow. Elementary players should not go all the way to the tip. The start of each stroke should find the thumb bent outward in the middle joint toward the hair. The little finger should be curved to its fullest capacity and placed on top of the stick, preferably on the inner side of the bow, more toward the palm of the hand rather than at the very center of the top. The fingers gradually straighten out towards the tip of the bow. Use the side of the hair below the middle and the full width of the hair above the middle. Play at least ten bows on each string. Going from the side of the hair to the full width of the hair may be gradual or should be done at the very center (at the discretion of the teacher). Above the middle of the bow, the stick should be directly above the hair.

The teacher should insist upon good posture. Practicing with the pupil standing on his toes is helpful. In order to maintain good balance,

the posture has to be correct. It is not enough just to tell the pupil to hold the violin higher. The posture must conduce to holding it high. Stand with feet slightly apart with the weight of the entire body between both feet and the weight gently moved towards the heels, with the hips slightly forward. The violin can in this position be held higher with minimum effort for a longer time.

The third problem is developing a well-shaped left hand. This is best accomplished when the child can place all four fingers on a string and play the next higher open string with the four fingers remaining on the lower string. Only the teacher can inculcate pride in this achievement. Exercises should be practiced in various rhythmic patterns, by rote, keeping a finger down on a string and playing the next higher open string--in order to help apply concentration on the intonation and the clarity of each note. Emphasis should also be placed on the actual holding of the violin without the assistance of the left hand. Holding the violin and walking about the room--or making a circle--or conducting with the left hand--or performing any rhythmic motion--will be helpful.

The fourth basic study is playing above the middle of the bow; the skill required here is using the lower arm (from the elbow down) only. We might say that anyone who has a good *détaché* above the middle of the bow and who uses the upper arm only when changing strings is well on the road to developing a good bow arm. But this is not the entire picture.

To go a bit below the middle still using the lower arm only is another challenge. As much of the bow as possible is to be used without the use of the upper arm.

The fifth basic study is the *détaché* in the lower half of the bow. Here the challenge is to play lightly in the heaviest part of the bow. The pupil will enjoy imagining the upper arm is as light as a feather, that it is air-borne--or, that the shoulder blade is the heavy end of a seesaw which actually permits him to play lightly without applying the full weight of the arm on the bow. He will enjoy playing a number of such strokes on each string.

The sixth basic study is the development of a smooth string change. While it takes a good deal of time to develop this, it is beneficial to start thinking about the problem early. Just being conscious of such an achievement improves the quality of playing. When going from one string to another in quarter notes, the change is made with the entire arm and a flexible wrist. The pupil must try to bring the hair as close as possible to the next string so that the change is made with no accent. The pupil then becomes conscious that the bow is drawn in a slightly vertical curve rather than in a straight line.

He is to start with the lowest open string and go to the next higher string, then back to the lower one, repeating this four times in the same bow stroke. This is to be done in slow quarter notes. These string changes are to be practiced in slow eighth notes, six times in one bow stroke. At the frog, the first string change is made with the fingers, the bow pivoting between the first and fourth fingers, with the thumb acting as a fulcrum. As the bow approaches the middle, the string changes

are made with the wrist--the upper arm at a level between both strings.

The seventh basic study is the *collé* stroke. I consider this one of the most beneficial strokes for the development of a good bow arm. For young people it is best to practice this stroke about two inches from the frog. What must be stressed is that it is begun with the bow on the string with the fingers curved. The bow is to be pressed firmly into the string by a slight pinching action on the bow. This pressure is released as the bow leaves the string in a spring-like action in the direction of the down-bow. The fingers then straighten out, the bow traveling about two inches above the string.

When playing the *collé* up-bow, the bow is to be pressed into the string with the fingers straight, and as the bow leaves the string in the direction of the up-bow, the fingers become curved. The *collé* should be practiced in two ways: (1) all down-bows, from curved fingers to straight; (2) all up-bows, from straight fingers to curved.

A feeling of freedom of bow arm will occur when the *collé* is practiced all down-bows, one stroke at the frog; then, lifting the bow and playing one stroke at the tip. It also should be done all up-bows. For the first-year students, this can be done on open strings, or with a one-octave scale in quarter notes.

The eighth basic is strengthening the left hand. No more effective way can be found for youngsters than the Geminiani Chord. As soon as possible in his development, the youngster should place the four fingers in this chord position and remain there, attempting to play each string a few times, leaving the fingers down. This may be followed by a silent study for the development of finger independence.

With the fingers set in the Geminiani Chord and with the others remaining down, each finger is to be raised and reset on the string, first in quarter notes and then in eighth notes, then alternating between the first and second, second and third, and third and fourth. This is to be followed by alternating the first and third fingers, second and fourth, and first and fourth.

At another practice period, the hand is to be turned around in the opposite direction. That is, if the first time the first finger was set on the lowest string and the fourth finger on the highest string, the procedure is reversed so that the first finger is now on the highest string and the fourth on the lowest string.

The next basic study is the ninth--the whole bow *martelé*. One of the manifestations of a talented youngster is his ability to draw fast bows, both up and down. However, the teacher might find with pleasure that average students will soon be playing with surprising breadth and freedom after practicing whole bow *martelés* on each string for a period of time. Interesting exercises or melodies at various grade levels make this more palatable to the youngster.

The weakness in performance of this stroke, of course is the lack of precision or neatness of attack at the frog and tip. An interesting thing to do is have the player press the bow into the string at the frog and move the string laterally without making a sound. If he is successful, he will pretty well have mastered the *martelé* attack.

The tenth basic study involves development of a well-poised bow arm for bow control and the ability to draw a fast bow. A fine way to achieve this goal is by a silent bowing study where the bow is drawn one inch above the string. The object is to draw the bow parallel to the string and still maintain the same distance from the string throughout the bow stroke. The bow is to be drawn down-bow near the bridge, for four slow beats. When the bow arrives at the tip, there is to be a pause. During this pause, the bow is brought closer to the fingerboard. The up-bow is then to be drawn as quickly as possible. This should be done a number of times on each string, starting down-bow, and then a number of times starting up-bow.

The eleventh basic study is the one-minute stroke. Youngsters will not be able to draw the bow longer than twenty to twenty-five seconds at first; they can manage to draw the bow slower with practice--but they must avoid holding their breath throughout the bow stroke.

The twelfth basic is drawing the bow on two strings simultaneously for thirty seconds. The youngsters find this less difficult and it is of great benefit for the development of a good foundation of a fine bow arm.

The final basic study, no. 13, is playing a series of one-octave scales on one string with one finger, starting from the open string. Many youngsters can do this reasonably well toward the end of their first year of study. It trains them to listen and develops the basic left thumb technique which will serve them well when starting the positions. Too many students are unsuccessful in getting upper position technique because of inability to use the left thumb properly.

These basic studies are to be given to pupils in the string class almost immediately. They are workable. They have been tried on countless students throughout the country. I have incorporated them in my own string method, the "String Builder," which, when used with supplementary material at the suggested times, provides a well-balanced program. It is the teacher, though, who produces the results. (A method should use enough supplementary material, very carefully planned.)

To summarize. Existing string methods will be improved if we consider the following:

1. A course in ear training, which should be incorporated into the vocal work being done at the school. This provides the adequate pre-instrumental training. This should not be too hard to arrange; it may take time, however, to convince some supervisors that it is very worthwhile.
2. A musical aptitude test to be taken by the children to determine their fitness to study a stringed instrument. At the present time, this is being successfully done in the Philadelphia schools. A plan for testing and selecting prospective string students has been worked out by James D. Shaw, Jr., of Philadelphia.
3. Enthusiasm on the part of the teacher to motivate pride in the physical achievements of drawing of a straight bow, proper setting of a finger on the fingerboard, and development of good posture while playing. There are three qualifications of a good teacher: dedication, patience, and enthusiasm. It is the third lively quality which instills the

requisite pride in the physical approach to the instrument. We might say a pupil plays as well as he looks. A left hand that looks good might well mean the beginning of a good left-hand technique.

4. Inclusion in the string class of the thirteen basic studies listed above. These should be done by rote; at each class period some time should be spent on one or more. The youngster should be inspired to practice them at home.

5. Supplementary material, carefully planned for each step of the technical development, so that the youngster will have enough material to work on to maintain his interest.

6. More than one lesson a week. In some states, the public schools have three. In others, regrettably, there is only one forty-minute period a week for perhaps ten pupils. It would be much easier to improve the results of string class teaching if the educators were convinced that more than one period a week is needed. String teachers in every state should make a continuing and combined and strong effort to get as much time as possible for the string classes.

7. Facing squarely the matter of drop-outs. Children are less apt to drop out if they can draw a pleasing tone or if they can play reasonably well in tune. Scales by rote should be introduced as soon as possible, and in their second year of study, hand calisthenics as preparation for the vibrato should be taught. The pupil who vibrates well is much less apt to drop out.

Confucius said: "If there were better manners and more music, there would be no wars."

A University Program for Preparing String Teachers—Allen P. Britton, University of Michigan

Before presenting what seems to me to be a fairly satisfactory program of instruction for preparing string teachers for work in the public schools, I should like to discuss two prevalent ideas, each of which accounts in some way for the present shortage of string players, in particular, as well as for a certain lack of academic prestige accruing to music.

The first is an idea prevalent on both the east and west coasts to the effect that musicians should not be educated in college and university departments in schools of music. This idea stems from the belief that musicians may be trained properly only in institutions bearing the name conservatory and, further, that no institution bearing the name conservatory can be a part of any institution bearing the name university. Detailed expressions of this idea may be found in the book entitled The Place of Musicology in American Institutions of Higher Learning by Manfred Bukofzer (New York: The Liberal Arts Press, 1957) and, more recently, in the "Editorial" by Paul Henry Lang in the April, 1964, Musical Quarterly (pages 215-226). At least part of the professional musician's lack of prestige in American society may be traced, in my opinion, to the fact that Harvard, Columbia, Princeton, the University

of California, and similar institutions on each coast do not maintain professorships of piano, violin, and other musical instruments.

The second idea is that the education of the "music educator" is or need be significantly different from that of the professional performer. It seems to me that there should be little or no difference in the education of performers and teachers but rather that all musicians should receive a generally similar type of education, one which would allow them to become professional performers or teachers or arrange a career that involved both types of activity. The high disdain for music education often expressed by musicians stems in part from the fact that many music educators are not as good musicians as they should be. It stems also, in part, at least, from an ignorance of the status of music education on the part of many professional performers. Disdain is not a constructive emotion, and the amount of it to be found for music education among musicians accounts in good part for the hesitancy with which good young musicians go into music education. Beginning students tend to apologize for entering this field by references to the "insurance policy" it represents.

Perhaps one other idea should be mentioned at this point. I refer to the idea that stringed instruments are much more difficult to learn to play than any other instruments. String players have tended to paint themselves into a corner on this matter. They have succeeded in convincing everyone that wind instruments are more easily learned than stringed instruments.

Perhaps one more idea should be mentioned, also. This idea may perhaps best be expressed in the form of a question. How are we to interest brilliant young men and women in all of the time and effort needed to learn how to play a stringed instrument when for much less expenditure of time and money the same person can become a lawyer or a doctor or an atomic scientist? Further, a career of playing second violin in one of our major orchestras, concentrating upon the second violin parts of the typical repertory of our major orchestras, does not in itself seem particularly attractive.

Aside from all of the above considerations, it is nevertheless true that the United States demands and can support a considerable number of string players. I refer now not only to the comparatively few positions available in our major symphony orchestras but, in addition, to the large number of teaching positions available in our public schools and in our colleges and universities. The latter positions particularly provide stable and good income while at the same time allowing for a considerable amount of personal satisfaction in the kind of work one can do and in the kind of community prestige one can enjoy.

What kind of college program could prepare string players for orchestral performance, college teaching, and public school teaching? Most schools of music in the middle west offer curriculums that might accomplish such a purpose, given students with appropriate prior training and given high level faculty. At the institution with which I am connected, we have two basically similar programs for training string teachers. Each puts a primary emphasis upon the ability to perform

on a stringed instrument, but each also provides for a reasonable amount of education in the history and theory of music, in the liberal arts, and in courses designed to prepare for teaching (methods and student teaching). One of these curriculums is designated as "instrumental music education" and is designed to give a bachelor of music degree and a teacher's certificate at the end of four years. An outline of the basic content of this curriculum follows:

	Semester Hours	Percent
Applied Music	48	38%
Principal Instrument (16)		
Secondary Instruments (12)		
Ensembles (16)		
Conducting (4)		
History and Theory	24	19%
History (8)		
Theory (16)		
Education	21	17%
General Music (2)		
String Methods (2)		
Wind Methods (2)		
Materials (2)		
Student Teaching (8)		
Educational Psychology (3)		
History of Education (2)		
General Education	32	26%
English (6)		
Languages & Literature (8)		
Science (8)		
Social Studies (8)		
Elective (2)		
Totals	125	100%

The second curriculum is called the "stringed instrument curriculum." This has everything in it that the instrumental music education curriculum has except that it is stretched out to five years. The Master of Music degree is awarded at the end of five years. By stretching the degree to five years, a considerably greater proportion of time can be given to the major instrument and to secondary stringed instruments. In our particular curriculum, the methods courses tend to come in the senior year and the student teaching courses in the master's degree year.

Curriculums of this sort have been criticized on the one hand for not allowing sufficient time for practice on the instrument and on the other hand for not allowing sufficient time for work in subjects other than music. However, such criticisms have come from those who, for

the most part, have had no experience with this type of curriculum or with the students that it produces. In support of this type of curriculum, arguments can easily be made to the effect that the conservatory type of curriculum produces a musician insufficiently acquainted with other fields of human endeavor and that the typical liberal arts curriculum with no applied music in it produces a musical critic rather than a musician.

It seems to me that the strongest arguments we can bring to bear in favor of the type of curriculum described is that it is designed to prepare the young musician to function in American society as now constituted. This society will demand a high level of musical ability but also a high level of general social and intellectual ability. Furthermore, the young high school student attempting to decide upon a career will not be tempted into undertaking one which promises to lead only to the rather mechanical performance of second violin parts of standard nineteenth-century symphonies for the rest of his life. By offering a college curriculum designed to prepare a student very broadly for any or all lines of musical endeavor within reasonable bounds, we perhaps can attract the largest number of talented students. By offering professional music instruction in the university, we bring to this instruction the prestige of the university, and thus we bring to the professional musician the prestige of a university education.

V. TECHNIQUES AND ADVANCED TRAINING

Modernization of Existing Materials for Intermediate Students—Joseph Silverstein, Boston Symphony Orchestra

Since the title of this paper is rather vague, it will be helpful, I believe, if I briefly outline the subject matter to which I shall confine myself. First, I shall try to define what I consider to be the intermediate level; then I shall explain my great concern for this particular stage in the student's development; after that I shall offer some ideas concerning the methods and materials now in vogue which I hope will be of some constructive value to the reader.

The students with whom I shall concern myself in this paper are those who have arrived at the stage where they are playing three-octave scales with a reasonable degree of accuracy and flexibility; are using the vibrato and shifting in more than a purely mechanical manner; and have either started or are about to study the Kreutzer Caprices. Their ages usually range from twelve to sixteen. You may ask why I single out this particular period as being important enough to warrant such lengthy comment. First, it is reasonable to assume that a student who has reached this level is capable of continuing on to a very high level of competence. Second, it is at this time that the increasing academic and social demands of modern adolescence strain the student to the point where he often loses interest and gives up the instrument. It is for these reasons that I am convinced that the interest of the student, as well as his continued progress, can only be sustained by a departure from the unimaginative and mechanical materials and methods that form

an integral part of traditional violin teaching.

I must stress that, to me, the most important function of the teacher at this stage is the firm establishment of a musical purpose in every note that the student plays. It is only the desire of the student to play with expression that will force him to seek the technical means to this interpretive end. The teacher therefore must utilize every device at his command to stimulate the student's appetite for musical expression.

As an example of what I consider pertinent in discussing a musical approach to these students, I would like to examine several Kreutzer Caprices. Among the forty-two which are usually assigned in a sequence of graded difficulty, we find several which are musically interesting and can inspire a strong interpretive reaction on the part of the student. Others, however, are so sterile and repetitious that they have a demoralizing effect on the student. They are also not too pleasant for the teacher to listen to, I might add.

First, let us examine the eleventh Caprice in E Major. It consists of a page-long series of triplets, and its principal technical objective is the practicing of a type of shift in which one finger replaces another on the same note, either on the same string or crossing over to the adjacent string. It looks, on first glance, something like wallpaper, and its musical content is roughly the same. In the first edition, there is not one dynamic marking in the whole etude.

The problem with which this study deals should not be treated in this manner, as it should come as an interpretive revelation to the student. The fact that the same note can be played in a great variety of tonal colors by changing strings and fingerings is one which can easily be presented to the student through a simple exercise, perhaps even patterned after this very same Kreutzer study. It would, however, be presented as an interpretive tool; it would not absorb so much of the student's time and energy; and it could immediately suggest a musical application for this type of shift. In the time saved, the student could study something else of greater musical value. I realize that writing out a specific exercise for individual students takes more effort on the part of the teacher than the mechanical assignment of another page of Kreutzer; but in explaining the reason for this short exercise, the teacher is doing so much to aid the student's whole process of learning, as well as his violin playing.

On the other hand, Kreutzer has provided us with several splendid Caprices which have great charm. The Caprice No. 35 in E Flat Major, for instance, is a large, handsome affair in the form of a brief sonata allegro movement in march tempo. It is filled with double stops, involved rhythms, and great problems of tone production with the bow arm. Despite my fondness for this study, I must find fault with its difficulty, which is far beyond most of the other Caprices in the book. Nevertheless, it has enough obvious emotional content to stir the musical imagination of the most thick-skinned student. It even provides the teacher with an opportunity to explain the sonata form in a way that can prove very exciting for the student. I doubt, however, that many of our teachers have seized this opportunity.

While studying these Caprices, the student is constantly implored to use the whole bow arm and produce a large, firm tone. The idea that the bow can be used in an infinite number of speeds, pressures, and combinations thereof is not mentioned, and the result is obvious to those of us who listen to many auditions on both student and professional levels. It is a specie of violinist who starts every down-bow at the frog, finishes it at the point, reverses the procedure for the up-bow, and rarely, if ever, varies the speed and/or intensity of either the bow stroke or the vibrato. This not only stems from the lack of musical purpose in the etudes and exercises which they study. It is primarily due to the teaching philosophy which insists on expressive playing only in the "piece" or concerto which concludes the lesson and accepts bland, expressionless playing in the dull etudes which are assigned week after week.

One is reminded of the charming anecdote in which Fritz Kreisler played the familiar second Caprice of Kreutzer for Carl Flesch in a stylistic manner similar to his inimitable performance of Liebesfreud. Flesch, while surprised at the unusual approach to this normally mistreated exercise, nevertheless perceived a great deal of good common sense in Kreisler's obvious declaration that practice without expression is not practice at all. It is merely a highly formalized ritual of boring calisthenics. This was, however, a highly sophisticated adult applying a great imagination to a little trifle in C Major that could hardly stir the emotions of a student. In the hands of a great artist, even the enormous output of repetition attributed to Sencik could be practiced with warmth and imagination. To a student I am afraid they are just time killers that can be practiced while watching television.

It is quite easy for me to say, "Don't use these dull materials," but it is another matter to suggest worthy replacements. I do not advocate complete rejection of these often weak materials. I would suggest the substitution of all of the duets of Spohr, Viatti, DeBerrat, etc. in place of many standard etudes. The reaction of the student to this early ensemble playing in terms of musical sensitivity is quite astounding. Also high on my list of preferred study works are the first violin parts of the Haydn String Quartets with teacher playing the second part. In really trying to bring this philosophy of approach into proper focus, I find myself constantly reviewing my own reactions as a student at this particular stage. I must say that I was somewhat more hungry for music at that point than the students I am writing about; yet I viewed many of these studies with a distaste that causes me to shudder even now, when I find myself temped to assign them to a pupil.

I shall now run the risk of the politician by writing what may at first seem a self-contradiction. After criticizing such a formidable institution as the Kreutzer studies for their musical poverty and general boredom, I am going to say a few words in favor of practicing scales. I shall qualify this at once by advocating a manner of scale practice which I think is in agreement with my previously stated views. If scales are to be approached not only for clean, just, and even results but as experiments in tonal and rhythmic flexibility, they can become a fas-

cinating and challenging game for the student.

This can hardly be termed a modernization of approach, because I use as my source for these suggestions the charming and informative treatise, "The Art of Playing on the Violin" by Francesco Geminiani, dated 1751. In his example No. 8, he has written out the scales over a figured base in a great variety of rhythms and bowings that change during the course of each scale. He suggests that they be played with great dynamic contrast and a more complicated phrasing structure than one encounters in playing repertoire. To extend this approach into varying tonal colors would indeed be a logical step with which to follow. Rather than continue the habit of playing a whole scale in a dotted eighth and sixteenth note pattern, I would lean toward the more imaginative scheme of Geminiani. I must say that the revered "Scale System" of Carl Flesch seems rather pedantic by comparison. On a less advanced level, Samuel Gardner has utilized this flexible system in his "School of Violin Study Based on Harmonic Thinking."

As a simple outline for the student, I like to describe the elements of tonal color in the following manner to be used when practicing expressive scales. There are, in fact, six basic ingredients: drawing the bow quickly, slowly, with great weight, very little weight, vibrating slowly, and vibrating quickly. If the student experiments with varying combinations of these elements, as per the teacher's suggestion, he will certainly find scale practice far from dull, especially when made aware of the overtones resulting from accurately placed thirds and sixths. It has been the experience of all of the violinists of past and present that the greatest problem which we all face is finding the technical means to arrive at a level of proficiency where we can fully express our response to the emotional content of music.

It is not from double harmonics, left-hand pizzicatti, and bowing tricks that our serious violinistic problems arise. It is the ever-present problem of musical intonation; the production of a warm and flexible palette of tonal colors; the ability to adjust shifting and bowing to various periods of musical composition. These are the things which must be introduced into the musical experience of a student at this stage in his development, as it is only through the challenge provided by these problems that the student's interest and proficiency will continue to grow. To close, I shall borrow some words from Geminiani's delightful text.

In speaking of the vibrato he says: "Even in common speech a difference of tone gives the same word a different meaning. And with regard to musical performances, experience has shown that the imagination of the hearer is in general so much at the disposal of the player, that by the help of Variations, Movements, Intervals, and Modulation, he may almost stamp whatever impression on the mind he pleases."

Improving Practice Habits and Preparation of the Advanced Student for Professional Involvement—Josef Gingold, Indiana University

When an aspiring music student presents himself to me as a candi-

date for admission to the University where he expects to spend four years majoring in violin, I wish first of all to trace his entire background on his instrument. What I am about to describe is typical of roughly 75 percent of the cases I have encountered over a period of years.

The average student usually began the study of his instrument at the age of nine or ten years in the public school system, under the instruction of the resident conductor of the school's orchestra. These teachers are university graduates with a degree of music education, and may--sometimes--be string players. In the latter instance, our youngster is fairly fortunate: for then he might have developed a correct playing position, learned to tune the violin properly, and perhaps come to love the instrument.

When the public school music teacher is a university graduate who has majored in an instrument outside the string family, then we may assume that he has studied the stringed instruments only for one year in order to qualify for his degree in education. In most cases, these teachers are engaged by schools where the emphasis is placed on bands, although they may be required to work with strings as well. With such limited knowledge of the stringed instruments, the teacher is at a disadvantage, just as the string teacher may be less competent to teach the band instruments. The real service these teachers perform, however, is to expose the children to music, to arouse their interest in it, and to encourage further study privately. An ideal situation for the music education student who intends to enter the public school system, of course, would be a more detailed study of the instruments other than his major one.

When, on the other hand, we turn to the child whose instruction began outside the school system, we are aware that books have been written on the psychological approach, the role of the parents, the child's attitude, and all the why's and wherefore's of teaching the beginner.

Were I to find a musically talented young child who wished to study violin, I would advise this youngster to begin his study of music on the piano for at least one year. This will teach him to think harmonically and will make the child a better reader by providing him with a clearer knowledge of the scales and time meters before he has to be concerned with holding up a violin, controlling a bow, and playing in tune. At the end of one year at the piano, the talented child should be able to play simple pieces by Bach and Mozart.

At this point, violin instruction may begin. It is my firm belief that this first teacher is the most important violin teacher the child will ever have. It is he who will lay the foundation for a solid technical equipment or--through inability to do this--will teach in a manner that will at some future time require a long period of undoing the damage; in some cases, it may be too late for corrective action. A good beginning teacher must be discriminating in his choice of teaching material; he should be patient and take a great pride in his work, being aware of his supremely important role in the child's study experience.

Many published method books are available, but few of them, in my

opinion, are worthwhile. Most in use are about twenty pages in length, decorated with illustrations and poetry, along with one note: an open G. A whole page may be given over to one open string. The books that follow, but contain very little, each cost the student one dollar. By the end of one year and perhaps eight books, not much has been accomplished apart from learning nursery rhymes and perhaps developing a slight awareness of C major, G major, or D major. The teacher's reasons for using this kind of material are summed up by the idea of "making the violin attractive--otherwise the student will not study." I wonder! My contention is that a child who, after two years of study, still cannot get around the instrument with some degree of rapidity, and produces a poor tone, will become "un-attracted" and soon give it up.

I prefer beginning material such as, for example, the Henning method. It starts with a C scale in two octaves, whole notes, four beats to a bar, accompanied by the teacher playing harmonies on the violin. This is followed by a series of short exercises in the same key but with various time meters. The relative minor is then taken up in the same manner. All the keys are covered, and the exercises are musical, beautifully written and perfectly harmonized; they stimulate the interest of a musical child. I have observed some excellent results achieved with this book and in some cases students have progressed--following this with Technical Exercises.

Having the child begin the violin after completing a year's piano study, I would spend at least one month of about one-half hour daily just setting the positions of both hands without reading a note of music. The child may play a few scales in one octave. This way, he may concentrate completely on holding the violin and bow, and although this might not be perfect at the end of a month's time, it will have provided a feeling of holding the instrument with some degree of comfort. This method may seem costly to some parents, but if they can be made to realize what a saving it will be in the long run, they will gladly cooperate.

The university music major has a full daily schedule of diverse subjects which, necessary as they are, often leave him but three hours a day for individual practice. He is required to study theory and secondary piano; attend lectures on music literature and music history; perform three to four hours of orchestra rehearsal weekly; attend one chamber music class--which requires rehearsals in advance--a foreign language course, English literature or psychology classes; and in addition he is required to attend a certain number of concerts. Some of the men students are enrolled in the ROTC program. I would like to state at this point that I am very much in favor of some of these requirements, because I believe that in order to contribute more fully to the profession a music major ought to be educated in fields other than his chosen instrument.

In college teaching, one's class is made up of students from all parts of the country who have a great variety of schooling and, in many instances, no schooling of worth. In the latter cases, a year is often needed for repair work. I have been fortunate to have had quite a few excellent students in my class at Indiana University, some of whom were

sent by teaching colleagues whose superior pedagogy has been a joy to me.

In cases where the early study has fared less well, the faults encountered are much the same: improper bow and left-hand development. In many instances, the student plays music much too difficult for him. When such is the problem, my first step is to give the student an etude and scale within his technical grasp, and work with him on the corrections needed. For right-hand development, I usually use the *détaché* and *martelé* bowings on three-octave scales, which I insist the student practice one hour daily. I will also assign one or two Kreutzer studies, depending on the problem, then allow the student to study a piece such as the Adagio in E by Mozart, the Romance in F by Beethoven, or the slow movement of the Nardini Concerto.

When I require scale practice for one hour, I usually ask them to be played with diverse bowings, such as:



For the study of arpeggios, I use the Flesch scale book. The student should do one section of these slowly at least once a day in the course of his practice period. Particular attention should be given to the intonation of the diminished seventh arpeggio.

In teaching the Kreutzer Etudes, I find this fiddler's encyclopedia more fascinating and beneficial as time goes on. The possibilities of variance from the original text are enormous and are an invaluable

aid to the instrumental development, whatever one's stage of advancement.

I should like to point out several studies with their possibilities; but while I insist on my students' following these variances, I know that I have discovered nothing new in the art of violin playing. Consider, for example, the very first etude in the book of Kreutzer, the often neglected study in A minor. This etude is a remarkable exercise for bow control, requiring a long, slow and steady bow arm to follow the dynamic markings and bow indications. This calls for the greatest patience, in order to derive the fullest benefit. The student should play the entire study with a metronome beating 40 to a quarter note! At first, our player is always out of bow by the end of the second of a three-bar slur. In time, however, and with diligence, the bow arm becomes steadier, the sound more sustained, and even the vibrato improved in the process. I also advocate playing this study an octave higher than written.

Kreutzer study no. 4, the invaluable one for staccato development, I use for the study of rapid pizzicato playing, a technical device so often neglected or taken for granted because of its infrequent use. Yet how often does even a fine violinist struggle with passages such as occur in the Beethoven "Archduke" Trio, the "Harp" Quartet, the Debussy and Ravel quartets, or in orchestral works such as the Tchaikovsky Fourth Symphony, etc. The student should aim to play every note of this "pizzicato" etude evenly, and at the same time produce a fine quality of sound. In time and with practice pizzicato playing can become a simple matter.

Etude No. 9 I consider an excellent study for left-hand agility. This etude should be studied slowly at first, building up speed gradually until the student is able to play it at maximum speed, if possible allegro vivace. If the hand tires at first, it is best to stop and rest. With continuous practice, enough reserve will be built up to enable the player to go through the entire etude without fatigue. I also recommend this etude to be studied with spiccato bowing. At first the coordination problems will be difficult, particularly in string crossings. In this case, varied rhythms are very beneficial.

I have cited these scale and etude examples as a basis for technical groundwork necessary for the university student. Nor is this all, of course. The teacher will want to cover etudes by Fiorillo, Rode, Gaviniés, and in some cases where there is sufficient ability, the caprices by Paganini.

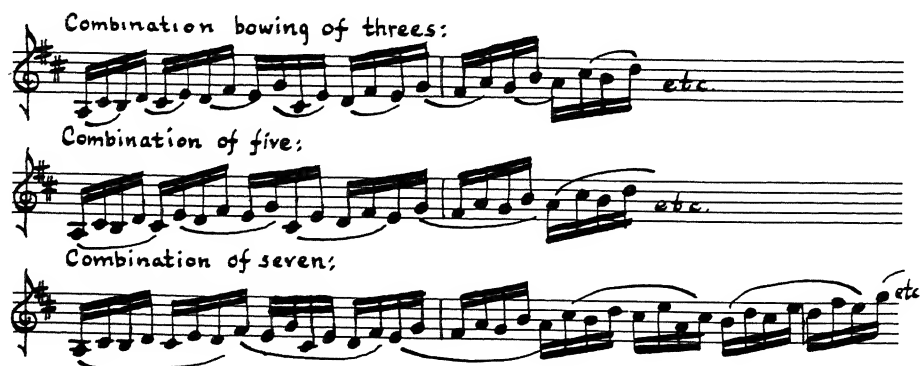
It may be noticed that I have not mentioned all the Etudes. In a period of four years it is virtually impossible to cover all the studies, since the above-mentioned, for example, would total 142. Furthermore, I do not regard it as necessary. An etude should serve a purpose. In his violin laboratory, a student should have one or several at his disposal for purposes of experimenting, formulating ideas, and from there going on to higher forms of his art. I do believe in playing all of the Rode Caprices. They are beautiful, each one a musical gem. All the major and minor keys are covered in these Caprices, which makes them even more valuable as a source of study material.

The splendid Seven Divertimenti of Campagnoli--each work designed to cover a different position--is a neglected volume. These have musical as well as technical merit.

The student, having practiced his scales and etudes well, now goes on to studying repertoire. New technical problems may come up here, making him feel at a loss as to where to start. It is my opinion that before a student begins to study a new concerto or sonata, he should play it through first with the piano, no matter how inadequate the reading may be, in order to acquaint himself with the score. I prefer this to a trip to the nearest record shop for the purpose of hearing an artist's performance before studying the work.

After the initial reading, the student begins a detailed study. This stage is most fascinating to me because I invent my own etudes from the musical text at hand. Take for example, the violin solo entrance in the Beethoven Concerto. To assure the security of intonation, the string crossings and the dynamic markings of the broken octaves, the student should practice it thus:

The image displays several musical exercises for violin, arranged in three systems. The first system contains three staves of exercises, each starting with a number (1., 2., 3.) and featuring various rhythmic patterns and fingerings. The second system contains two staves, with the first staff ending in 'etc.' and the second staff starting with 'Bowing Varieties:'. The third system contains one staff with 'etc.' and '(VIOTTI)' written below it. The exercises include scales, arpeggios, and various bowing techniques indicated by 'v' and 'p' markings.



The repertoire is filled with difficult and intricate passages which can be solved through this type of patient and intelligent practice. The same kind of practice can be applied to chamber music and orchestral parts as well. I cannot stress enough the importance of treating these parts with the same care and technical cleanliness that one would bring to any other kind of study material, be it scales, etudes, or solo repertoire.

The student who, upon entering college, has decided that symphony playing will be his career, should in the course of his studies be aided by his teacher in gaining more than a casual acquaintance with the important passages of the orchestral repertoire. (He will need them--in the most crucial and dramatic fashion--when he auditions for a conductor!) The college orchestra does give him a fine opportunity for ensemble playing, but it cannot possibly cover the amount of music the student will later face in this field. I should like to see orchestras of colleges and major music schools devote at least fifteen minutes of each rehearsal period reading through sections of standard orchestral works. This would serve a dual purpose: it would introduce the student to more repertoire while it trains him in sight reading. I find that a school orchestra generally concentrates only on the repertoire it plans to perform. Since these groups may give only four or even fewer concerts a year, the material studied is clearly insufficient.

For practice purposes, I am a firm believer in the use of the metronome. Not for a moment, of course, do I advocate the continuous ticking over a period of hours. The use of the device is of great advantage to those students whose rhythmic instability requires constant checking. It is most helpful in slow as well as in fast movements. In slow movements, it is an aid in subdivisions for the proper placing of the smallest denominator.

The question of "warming up" has frequently come up for discussion. It would appear that this is a matter for the individual, and that no set rules can apply to everyone. Some hands are more flexible than others. Personally, I do not adhere to the idea that one must start practicing by playing mechanical exercises. After a prolonged period of such work, the hands are unable to function for any real playing until they have been

“unloosened.” Also, in the course of a professional career, one sometimes finds himself in a situation where no time is available for a “warm-up” prior to stepping onto the stage. One must then be able to play immediately, in a highly “warmed-up” manner!

If preparation time is available, one might begin by playing a slow movement in which one’s musical imagination can be set to work and the hands spared the kind of tension that might result from taxing exercises. After this, one may proceed with the regular routine of scales, arpeggios, etudes and repertoire.

I should like to caution students against some existing literature that is designed to speed up the warming-up process. Many stress the stretching exercises as a quick remedy for “coldness.” This can be ruinous to the muscles of the left hand, if it is not used wisely. In fact, I am opposed to the use of this material in its entirety.

One problem which often plagues students--as well as some professionals--is difficulty in reading such notes as F flat, B double-flat, D double-sharp, etc. Since this can be a frustrating experience, it should be faced and discussed. To the best of my knowledge, there is no study material to alleviate this problem. Awareness on the part of the teacher, and his insistence on carrying through a few ideas on the subject, may in time provide considerable help. These symbols, after all, are merely translations: one recognizes an F flat as an E natural, a B double-flat as an A natural, and a D double-sharp as an E natural. One knows, of course, that an F flat and an E natural are neither melodically nor harmonically the same; but for practical purposes it seems to be the best solution to regard these symbols as such when one encounters them in string playing. This becomes an aid in fingering the passages when they appear. Do we use different fingering for the D flat major scale than for the C sharp major scale? Or for the G flat major scale as opposed to the F sharp major scale? Just as to, too, and two are pronounced alike, but have different spellings and meanings, so it is with these scales. Here is an example:





The first example, which looks forbidding to the sight reader, is merely a C major scale; the second, an E flat major arpeggio.

If the objections be made that no reputable composer would notate his music so awkwardly, experience shows that quite frequently composers will choose--within an otherwise obvious passage--an enharmonic notation over its more practical equivalent because its meaning is more nearly correct. Occasionally, an orchestral part will be "simplified" while the score is left untouched; but it is useful for the player to know this. In chamber music ensemble, the difference between an ascending F sharp and a descending G flat may be noticeable and important; but they may not require a different fingering once the player has recognized their near-identity and has become proficient in the translation of the symbols on sight.

The choice of proper repertoire for a college student to cover in four years must be undertaken with care. It should embrace I believe, works by composers of all periods. (This will also considerably broaden the student's technical grasp, since the demands on the left hand differ so markedly in the styles of composers a century or so apart, and, particularly in the music of our time, frequently offer brand-new problems.) Of importance in the survey of this repertoire is the study of at least one solo sonata, one solo partita, and one concerto by Bach. Of Mozart's works, one of the concerti, two sonatas, and two of his shorter compositions. Of Beethoven, two sonatas, and--if the student's technical ability is equal to it--the Concerto. In addition, he should know at least two sonatas from the Baroque period--for instance, one by Vivaldi, Handel, Corelli, Pergolesi, etc. He ought to study a sonata by Faure', Franck or Debussy, and a contemporary work such as a sonata by Bartok or Prokofieff or the Schoenberg Fantasie. The list should also include the violin concertos of Mendelssohn and Tchaikovsky and "fiddle concertos" by Vieuxtemps, Wieniawski or Paganini. Always added to these should be at least one contemporary concerto. Shorter pieces must be included occasionally in the repertoire to be studied. This list, of course, is only an outline; but it can serve a student as healthful musical and instrumental fare.

A student's rate of progress is not always determined by technical competence alone. If this were the only criterion, we would perhaps see better players emerge from our schools each year. For me, nothing can be achieved in music without dedication, enthusiasm, and a love of one's art. The truly dedicated student lives for music and by it; this love of music manifests itself in his performances from an early age to the day he enters the profession and forever after.

The talented student today has many fine opportunities to obtain the best possible teaching. When he has prepared himself to meet the high standards required in the professional field, he can make a notable

career for himself.

In conclusion, I would say to the young professional, as he embarks on his first engagement: "Bring your violin--but bring your heart with it."

Introduction to Ensemble Playing—William Kroll, Mannes College, Peabody Conservatory and Cleveland Institute of Music

I believe that being introduced to chamber music at an early age often results in a lifelong friendship. The ensemble literature contains many of the finest works of great composers and the study of these is of great value to musical and technical development. It is of equal value to the forming of good taste in musical art.

Ensemble training, aside from the importance to musicianship and instrumental technique, serves yet another purpose. It develops in the student a quality that I call "awareness." Being aware while playing develops a sensitivity to other voices, to tone gradations, to the flow of pulse, to time element, to intonation and the adjusting thereof to other voices, to the flexibility in phrasing.

The young student must, in the early stages of his training, learn the art and realize the importance of listening and observing while he is playing. He must develop the mental and technical ability to mold and develop his own phrases along with those coming from other voices. He must join them in rhythm--in dynamics and in intonation.

Now I want to say a word about the coach. It is his duty to lead the quartet, or any other combination in his charge, through the early stages of ensemble playing with firm rein. This hold, however, can be soon relaxed and, finally, removed; for leadership in quartet playing comes from within the quartet and not from without. It must exist within each member of a quartet--or any ensemble group--to be asserted when rhythmic or melodic patterns so indicate.

Now, let us turn to a few technical problems--the act of setting four individuals into concerted motion; of setting a tempo; of establishing a unified pulse.

A simple example is the "Hunt" Quartet by Mozart. I say "simple" because the pulse is quite regular: the time signature is 6/8, the pulse in two. The pattern is in no way complicated, but since several voices begin precisely at the same time, the exact speed of the notes must be established in the minds of all performers before any note is sounded.

Let me say before proceeding that the practice of leading and following is of great importance to the budding chamber musician. It sharpens awareness and is a strong aid to good ensemble. I offer the following example:



Beethoven String Quartet
Op. 18, No. 1

For ensemble accuracy (since all four voices play in unison), a double signal is in order: a long, calm one that covers the first quarter and the suspension, and a more energetic upbeat covering the last two eighths. This procedure will unify the speed of the measure in all voices. In my opinion, a single upbeat indication is not sufficient as it does not reproduce the various time elements in the measure.

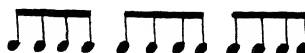
Close attention must be directed toward a leader--in fact, toward any voice that carries a rhythmic or thematic line, for that is the leader.

I always derive great pleasure when observing how young people receive and execute these instructions: when I see intensity, the shining light in their eyes as they realize that their well-coordinated motions can bring immediate, concerted action from others. They may fumble a bit, at the start, but ability soon develops.

Now I want to describe a different manner of setting a quartet into motion. As example, I take the opening of the C Minor Quartet by Brahms. (Let me digress for a moment to say that if young people have the instrumental ability, I do not spend much time on works that do not pose ensemble problems. I prefer to expose them as soon as possible to works that will sharpen their reactions to basic intricacies of ensemble.) The C Minor Quartet opening thematic line is placed in the two upper voices. The time element is $3/2$, and the rhythmic divisions of the theme is as follows:



(three groups of dotted quarters followed by eighths, then two half notes). The lower voices play a continuous string of eighth notes:



Now, while the first violin indicates the upbeat and sets the quartet into motion, his command, or lead, temporarily ends; for the two violins are committed to follow closely, the rhythmic pattern set by the cello and viola. The lead has shifted and actually remains in the voices that play the continuous string of eighth notes. Speaking of leadership--a good leader is a good follower! We must realize that any indication to start, to accelerate, or to retard means that the person giving this indication must adjust his own action to the time required by the recipient(s) to follow the given indication. This may take only a split second, but an experienced leader must know how to fit his voice with other voices. This rule must be carefully observed when strong chords are produced. The soprano voice should not anticipate the bass.

An important faculty (of all ensemble players) is hearing tonal balance--to judge one's own tone strength with that of others. We must remember the fact that three players in a quartet hold their instruments close to their left ear, which may tend to distort the degree of volume.

Some understanding of this problem will come with added experience, and some aid to this end can be acquired by keeping bow strokes as uniform as the music will permit. Strokes of equal length, in similar parts of the bow, will do much toward bringing about a unified sound.

Vibrato is also an important item. While this is a more "individual" problem, a group must try to adjust so that their vibrato will have, as much as possible, a unified intensity which will add richness, balanced tonal emotion and color to their playing.

A few words about intonation: this, of course, along with other instrumental attributes, is of great importance to ensemble players. They must constantly adjust, not only to one another, but they, unlike performers on keyboard instruments, create their own intonation, and their ears must be sharpened to the pitch of others.

However, just a few more serious words to those precious people, the students: I trust that you all realize your good fortune in acquiring the ability to play music--beautiful music--and to speak through it to other people. With your fingers and your instruments you can laugh, you can cry, you can speak through it to other people--in anger, in peace, and in calm. In fact, you can speak in every possible way except one: you cannot tell a lie!

A thought or two about music education in music schools. First, we must realize that a young boy or girl whose future is placed in the hands of an educational institution (by this I mean any educational institution, not only a music school) entrusts his or her future into the "hands" of the institution. The best years of a young life are so entrusted, and the institution is duty-bound to establish and to maintain the finest possible standards. It is the duty of a director to equip his school with fine and dedicated instructors. It is the duty of such instructors to maintain the highest possible standards for promotion and graduation. It is the level of these standards that I find to be deplorably low! I base this observation upon an experience of over forty years, during which time I have seen, heard, and examined students (and graduates) who were woefully deficient in musical, theoretical, and technical development.

ADDENDA

*The String Shortage and Music Education—Robert Klotman, Director, Music Education, Detroit Public Schools**

It is most gratifying to find our finest professional musicians becoming more concerned with educational responsibilities. It is regrettable that it has taken a critical situation, the "string shortage," to alert them to the pressing need to work with those who nurture talent in its incipient stages. And this means, unfortunately, even working with some regardless of their competencies, if only to improve a situation.

*Robert Klotman was unable to attend the symposium but sent the above report.

In reviewing last year's reports, I found a lack of genuine understanding regarding the role of music in our schools. First, we must recognize that the prime responsibility of the public school is to educate the citizenry; and that music is just one small facet of this total process. In addition, string instruction, per se, is merely one segment of music education. Actually, the prime responsibility of the music educator is not to develop string players for the symphony orchestra, but to develop a generation of musically sensitive, intelligent adults that will be sufficiently responsible to participate in the musical climate of their community.

To the superintendent of schools, it may be a matter of interest that a string shortage exists. But he is governed by pupil-teacher ratios and school budgets, and if the size of his staff merits only one instrumental music teacher then he must be, of necessity, a person who turns out to be a jack-of-all trades. Those of us in the profession who live with the situation daily are equally concerned. We do not condone this practice. Even those who are forced to assume jack-of-all-trades jobs would be much happier teaching only in their special area. However, until such time as this becomes important to the community, and it is reflected in the school budget, little can be done except to improve the competencies of this teacher.

In addition, a superintendent may not have a director to influence selection of a staff. If he is fortunate, he has a Personnel Department that presumes, after a satisfactory interview, that if a person graduates from an approved university, with a degree, a fairly decent transcript of grades and credits, and a certificate, then he is certainly qualified to teach music in his field. Therein lies his first erroneous presumption.

I am not trying to absolve the school instrumental teacher of his responsibilities to music or justify incompetence. Teachers do have a tremendous obligation to talent to see that it is properly guided when it is under their direction, whether by accident or through an organized program.

The major questions confronting this symposium are how to assure and implement this last statement, and what is the responsibility of a society beyond this point. The problems may be isolated into the following categories:

1. How can we influence colleges so that they will not accept students who are obviously inadequate to assume the responsibilities of music instruction?
2. How can college curricula be revised so that every instrumental graduate who receives a diploma is guaranteed to be of sufficient competency to guide early string instruction in public schools?
3. What can the community offer the talented child who plays a string instrument and finds it utterly financially impossible to take private lessons?
4. And finally, a dangerous question. We are saddled with incompetencies. True, they are diminishing, but we must do something with those who still exist. We cannot disregard them or merely remain

adamantly disgusted or disinterested. What can be done to help these people and their situations?

Perhaps we may pursue these problems in depth at a specially designed conference of professional musicians, deans of colleges, and responsible music educators.

*Some Views on the String Shortage — John Corigliano, New York Philharmonic Orchestra**

Having been asked for my views and thoughts pertaining to the serious situation of string instrument players today, I agree that the situation is indeed serious.

Let's go back to the 1920's when I made my debut in old Aeolian Hall, New York City. This was the era when great violinists flourished, e.g., Kreisler, Heifetz, Elman, Zimbalist, Szigeti, Toscha Seidel, Max Rosen and numerous others. Violin recitals took place almost daily in all of our large cities. In addition, string players were in great demand. The big movie theaters had full symphony orchestras; the lesser movie houses, smaller orchestras. The theaters, hotels, and restaurants had live music. It was a busy time for musicians.

Then radio, television, and "canned music" developed. This caused great distress and unemployment for most musicians. A great many gave up hopelessly or went into other fields of endeavor to escape life which had become only hardship.

Another factor in the decline of the pursuit of music as a career was the fact that the rising generation began to substitute automation and apathy for disciplined work. The touch of a button brought music via radio, television and high fidelity recordings. Many other modern scientific inventions instigated cushioning comforts which promulgated laziness in the young, a desire to "let go," to find the "easy way" to happiness, forgetting that success, particularly artistic success, comes only with great sacrifice and toil. What can be done now, actually, to stem the tide?

A few years ago, a thought came to me which I expressed to my distinguished friend and colleague, Mr. Richard Burgin, and of which he approved enthusiastically. It was that a symphonic society be formed, to be called "the United States Symphonic Society." Some points to be considered in the concept of such a society are as follows:

This society should be composed of all the professional symphony orchestras in America and should be divided into two sections: major orchestras, and minor orchestras. It should function much like our baseball leagues. The officers could be elected from the leading personnel of major orchestras, *i.e.*, conductors and concertmasters and first desk men. Like industrial, medical and business conventions, the society should hold annual conferences, and these

*John Corigliano was unable to attend the symposium but sent the above report.

meetings should be scheduled in different cities. At these conventions, the discussion of future careers for talented young artist-students and/or orchestral players should be predominant. Auditions should be held at these times and heard by the society's officers, always with a view toward furthering worthy careers.

And, as in the medical profession, talents coming from the finer schools of music should spend a probationary period of about two years before being placed in major orchestras.

I have always felt, also, that when an older musician is forced to retire from a major orchestra and wishes to continue to be useful, his invaluable experience should be utilized by having him "sit in" in a minor symphony and give of his vast knowledge. This would be an inspiration to the less experienced musician.

The outstanding young artists who wish to pursue solo concert careers should be heard and helped by being given solo appearances with all orchestras and, most important, our government should subsidize these extraordinary talents, sponsoring recitals and concert performances for them.

To lament the serious situation of string instrument players today is not enough. Positive action can be taken to remedy the situation, and, in my opinion, the ideas expressed above could prove most fruitful. For music is one of the higher forms of artistic expression and should continue to develop its potential, along with the other arts, for the ultimate benefit of humanity and the fulfillment of our great American culture. To use the words of the American poetess, Edna St. Vincent Millay ("On Hearing a Symphony of Beethoven"):

Sweet sounds, oh, beautiful music, do not cease!
Reject me not into the world again.
With you alone is excellence and peace,
Mankind made plausible, his purpose plain.

*From "Considerations on the Aims of Music in Education. The Function of Music Academies"—Massimo Bogianckino**

On a general theoretical plane, I wonder whether it is desirable to lay excessive stress on the transmission of information of a pedagogical nature at the expense of a thorough and comprehensive specialized training. It seems to me that specialization in education should not forego training concentrating on a thorough grasp of performance and inter-

*This paper is added because of its relevance to the topic under discussion. It is extracted from Music In Education, Proceedings of the Fourteenth Symposium of the Colston Research Society held at the University of Bristol, April 2-5, 1962 (London: Butterworth, 1963).

pretation. We all realize that it is not possible to penetrate the heart of musical creation and grasp its innermost significance, which has to be revealed to the students, without adequate technical preparation; and even the most laborious and seemingly elementary exercises carried out in order to overcome a difficulty in performing music bring us much closer to its appreciation. Insufficient preparation in this field has harmful repercussions, even on those branches of music which seem not to need direct, almost physical, contact with sound. It is certainly no accident that talented composers are almost always competent instrumentalists and that a frequent indifference to the direct and living practise of music has given rise to the proverbial figure of the musicologist who lacks a sensitive appreciation of music, although he has an ample grasp of many of the secrets of the signs standing for the sounds. The musical educator must therefore have the capacity to combat and vanquish the malicious prejudice that he who can, does; he who can't, teaches.

VI. SUMMARIES, PLANS, IMPLEMENTATIONS

Summary of Free Discussions by Speakers, Symposium Members, and Audience

Chairman Louis Krasner opened what he called the "working session" by inviting the audience to contribute their ideas. Immediately following, the panelists were to discuss and formulate recommendations in response to questions prepared by Donald L. Engle, Director of the Martha Baird Rockefeller Fund for Music, Inc.

Kalman Novak, Director of the South End Music Center, suggested that the settlement music schools might play a part in improving the string situation. He proposed the possibility of attracting students from lower income levels to the field of string playing if they were encouraged to consider music as a satisfying outlet for self-expression and a means of gaining social recognition.

Benson Snyder, Manager of the Syracuse Symphony Orchestra, expressed the orchestra administrator's interest and concern with the problem. Emphasizing that a partial solution might lie in a cooperative effort between orchestras, educational institutions, and public school programs, he supported the use of professional orchestra players as part-time teachers in the public schools.

Attention was directed by Kenneth Harrison, a California high school teacher, to the college and university training of public school music teachers. Upgrading the quality of string and music teachers must begin with their own training, he said, and while many professional organizations are giving attention to this area, they suffer from a lack of coordination of their various efforts. Harrison deplored the lack of communications between national music organizations and school administrators and called for a program of mutual enlightenment.

In this connection, the chairman called on Joseph Saetveit, Supervisor of Music Education for New York State. Saetveit described the efforts of a group of New York organizations which recently joined

forces in order to promote string music on a state-wide basis. The New York State Education Department has already begun compiling a brochure to promote string instruction, planning to follow up with an appropriate handbook. The organizations also plan to interest other professional groups to cooperate in promoting string programs in New York school systems, he said.

A music supervisor in New York City, David Greitzer, added specific proposals: that summer seminars be organized for string teachers, to be taught by professionals from major symphony orchestras; that during the year professional players give clinics and demonstrations of new materials and teaching techniques, to be financed by foundations, music publishers, and instrument companies; that teacher licensing requirements be re-evaluated, with standards set up for special music teachers in public elementary schools; and that string programs and music education programs in the universities be lengthened to five years instead of four. He asked the panel to recommend such proposals to state education departments and the U. S. Office of Education.

Another idea was contributed by Louis Trzcinski, of Nebraska University, who described the great success of the Nebraska String Plan. This program, sponsored by the university's extension division, sends out a string specialist to work with music teachers across the state. Because of the highly favorable results of this and similar programs, he urged expansion of such plans by colleges and universities throughout the U. S.

The crux of the problem lies with the public school administration--this was the conclusion of George Schwartz, a professional musician and educator in Newark, New Jersey. Schwartz reminded his listeners that the goal of public school music instruction is not primarily to develop professional musicians. While an obligation to identify and channel talent is present, teachers are often hampered in so doing by administrative policies, he said. Thus he stressed the need to acquaint administrative associations, such as the American Association of Secondary School Administrators, with the problem and with their obligation in the situation. He suggested also preschool talent testing programs.

Following these suggestions from the audience, the fourth session continued with the focal point of the entire symposium: the panelists' formulation of concrete proposals for ways to meet and solve the problem of the string instrumentalist shortage. The topics covered four areas as follows:

I. TRAINING

- a. What are the weakest points now in the whole system, or at what level is immediate attention most needed?
- b. What specific steps can be taken on a national scale to improve training at various levels? How effective does the panel consider the following:
 - 1) Settlement schools and the preparatory departments of colleges and conservatories

- 2) Public school programs, regular term and summer
 - 3) College and conservatory curricula
 - 4) Professional training orchestras (The New School of Music, Philadelphia; National Orchestra Association; American Symphony Orchestra; Interlochen Arts Academy, etc.)
 - 5) Teaching tools: films, educational TV, other materials
 - 6) String quartets "in residence"
 - c. What organizations are most effective or best equipped to implement improvements? Is greater cooperation or collaboration possible? Is the American String Teachers Association (ASTA) doing what it should? Music Teachers National Association (MTNA)? Music Educators National Conference (MENC)?
- II. OTHER FACTORS IN THE STRING INSTRUMENTALIST SHORTAGE
- a. What positive steps should be taken, such as surveys, studies, experiments, demonstrations, curricula revisions, improved materials, apprentice employment, etc.? By what agencies would these steps be most appropriate?
 - b. Could present employment practices, including auditions, and notices of vacancies, be improved?
 - c. Are academic degrees of increasing importance to professional musicians, or teachers in studios? Is the apparent demand for such degrees barring competent professional string musicians from teaching posts in colleges and universities?
- III. RESOURCES
- What is needed in personnel, facilities and equipment, and funds to carry out symposium recommendations?
- IV. THE SYMPOSIUM
- What is the next step, if any? Another symposium? For what purposes, and what specialists?

It was not always easy to formulate a specific recommendation, one agreed on by all panelists. Discussions ensued as new angles were introduced; differing viewpoints on the nature of the problems brought forth a variety of responses. Sometimes direct remedies were suggested, with only the need remaining for funds to carry out the plans. In other cases, the panel could only suggest that machinery be set up for problem areas which need to be researched in order for goals to be determined, plans developed, and further funds gathered before action can be taken by a specialized organization.

The complexity and the scope of the string problem, calling for such a vast amount of research and action in multiple directions, made it appear at times almost overwhelming. Fear that the panelists could not even begin to make all of the necessary proposals was voiced by Max Kaplan, who suggested that rather than try to answer the outline, the panel instead establish machinery to tackle the issues--propose a general council composed of representatives from such organizations as Music Educators National Conference (MENC), American String Teachers

Association (ASTA), Music Teachers National Association (MTNA), and the National Guild of Community Music Schools, along with people from the U.S. Office of Education, the National Conference on the Arts in Education, and participants in the Yale Seminar held in 1963. He suggested that a foundation be approached to support such a council which would meet briefly, consider the discussions of the present String Symposium, establish priorities, and set up subcommittees to consider and solve the specific problems.

Henri Temianka quickly pointed out the advisability of making some concrete proposals even though the panel could not hope to solve the problem in a single effort, and Chairman Krasner reassured Kaplan that plans had been laid for establishing such a committee after the symposium so that there was no need for any immediate discussion.

With a definite goal--a committee of string experts and educators to take direct action and supervise other specialists who would take measures to solve the problem--and with suggestions, arguments, questions, and proposed solutions from two days of speeches and discussion, the panelists began their task of narrowing down proposals point by point.

Ia. Training. What are the weakest points in the whole system, or at what level is immediate attention most needed?

Failure to interest and to hold the interest of children at the grade and secondary school levels was judged to be the weakest point by the panelists. It was ascribed partly to economic conditions, partly to social conditions including an atmosphere detrimental to string playing, and partly to the lack of imagination and proper training in the teachers.

William Sokol, of the University of Washington, simplified the problem into two terms--money (musicians' salaries) and teaching ("assembly-line" rather than "dedicated and inspired").

Ralph Matesky, Orchestra Affairs Chairman of ASTA, found that "areas needing careful and honest appraisals" included the role of the instrumental teacher in and out of the public schools, music in the secondary schools, and cooperation between performers and educators.

From the audience, Marvin Rabin stressed the need to recognize that young music students today must be regarded from a new perspective--"in a rather composite interrelational kind of activity that involves the whole scope of musical activities." He felt that the greatest amount of encouraging effort should be focused on training children up to high school age during the time when they can concentrate freely on music alone, without concern for economics or music as a profession. Rabin also pointed out as a trend for investigation and consideration the fact that a great proportion of young players today are girls.

Because of the tendency to find fault with public school teachers and administrators, Robert Klotman, Director of Music Education for the Detroit Public Schools, came to the educators' defense in a written contribution. He pointed out the prevalent lack of understanding of the role of music in the public schools. The responsibility of the music educator "is not to develop string players for the symphony orchestra, but to

develop a generation of musically sensitive intelligent adults that will be sufficiently responsible to participate in the musical climate of their community."

School superintendents, he wrote, cannot be wholly blamed for the string player shortage; they are forced by their school budgets to hire a single jack-of-all-trades music teacher and will continue to do so until the community provides funds to change the situation. Similarly, the superintendent of necessity hires a music teacher mainly on the basis of his university degree and certification without knowledge of his actual abilities. The responsibility for the standards, then, must be the concern of the university music education schools. Too, part of the problem of the school superintendent is a shortage of organizational personnel.

The problem, as Klotman sees it, lies in several areas: college curricula and the lack of selectivity in the acceptance of music education degree candidates, lack of community resources for the child unable to take private lessons, and existing incompetent music teachers. The more prevalent attitude on the role of the public schools in the problem was expressed by George Schwartz, immediate past President of the New Jersey branch of ASTA: "The area to be investigated is that occupied by our public school system." The pertinent problems "relate to the difficulties attendant upon a child even beginning the study of a string instrument:

"1. General administrative situation tending to discourage rather than encourage the organization of a successful string program.

"2. Generally poor to mediocre string teaching even by so-called string majors.

"3. Too few string majors.

"4. In contrast to our band brethren, an apathy among string teachers in regard to organizing for strength and direction."

Schwartz proposed contact with educators, specifically the American Association of School Superintendents of the National Education Association, elementary and secondary school administration organizations of the same main body, and state commissioners of education.

While the panelists agreed that the heart of the matter was to arouse and sustain the interest of children in string instrument playing, there was further debate on the means for doing so.

Orlando Cole stressed the importance of family participation: "Parents should be persuaded that they can encourage, they can participate in, they can stimulate their child's interest and even force their children to practice up to a certain point and still remain on speaking terms with them after all of this is over." He was supported by K. W. Bender, Director of the Second Street "Y" School of Music in New York, who described his own work to encourage family participation. After a parent-teacher symposium, his "Y" School issued a Manual for Parents in the Instruction of Music which suggests ways in which parents can be helpful to their music-student children. Bender also instituted a family team project which encourages parents who at one time played an instrument to resume playing with their children.

Theo Salzman took an opposite point of view, however, having found it

more desirable to approach children directly. Through them, he said, the parents become interested. He advocated encouragement of such programs as Gateway to Music in Pittsburgh which presents string quartet concerts in the public schools. This program, he reported, has demonstrably influenced children to take up stringed instruments.

Ruth Posselt shared the feeling "that parents should play a vital role in encouraging children in their music studies." but she warned of the possible dangers as well. The presence of parents at lessons, for example, can be detrimental by causing a conflict of authority. She added that the main objective to be kept in mind by all those involved in teaching children music should be "to instruct our pupils with the ultimate objective of making them independent of us."

Ib. What specific steps can be taken on a national scale to improve training at various levels? How effective does the panel consider the following?

Ib. (1) Settlement schools and the preparatory departments of colleges and conservatories.

Settlement music schools were found to be of such importance that the panel urged foundations to "further and implement by grants the present program as it is being carried out by the community music schools of the United States." From the audience K. W. Bender stressed the high quality of instruction offered to large numbers of young people by the member schools of the National Guild of Community Music Schools in America. Since existing settlement schools are primarily located in large cities, many more are needed in smaller cities and in areas where less music is produced. Support of these schools is seen as a necessary foundation for improvement in the public schools.

In fact, since, as was pointed out earlier, the public schools by nature cannot assume responsibility for producing concert string players, it is up to these settlement schools and community schools, along with preparatory departments of colleges and conservatories, to assume the task of attracting and encouraging string players on the early levels.

In the words of Orlando Cole, "the settlement schools need not only financial support, of course, but they need the support of panel teachers to visit them and help them with advice and to spot the talent--just as baseball managers go into the bush leagues and scout for talent--so that those youngsters who have real potential for professional development can later be developed into the string players that we need. This getting over the hump from the elementary level into that level in which they're useful violinists or cellists, that's where the mortality rate is highest. And it needs the very finest advice and judgement of teachers to help in this matter."

The effectiveness of a related program--that of the university extension--was attested to in a research study undertaken by Louis C. Trzcinski of the Department of Music, University of Nebraska, who analyzed and appraised the development, organization, and basic activities of three state-wide university extension string courses. He

reported positive results: that universities which provide leadership through string programs in their extension programs do contribute to the improvement of orchestra programs in their state, and that such extension programs contribute to the professional development of teachers at the same time that they encourage students.

Trzcinski learned that while each university extension division must work out its own program according to its particular needs and resources, some fundamental principles are common to all. For example, the purpose of such a program should be threefold: to help schools and communities revitalize orchestral interest, to help music (especially string) teachers to further their musical growth, and to give community musicians the opportunity to participate in string ensembles and orchestras. Issues served by the program could include string curriculum planning, youth interests, and local music needs.

On the basis of his study of the University of Nebraska String Plan and the extension programs of two other universities, Trzcinski drew up a list of recommendations for such programs. (His study is available as "A Study of Extension String Programs," unpublished Doctor of Education research study No. 1, Colorado State College, 1962). They include the following:

1. Aim programs toward the development of in-service training.
2. Develop both youth and adult education programs.
3. Work for interuniversity exchange of ideas and research. Other universities may be contacted by the National University Extension Association.
4. Make use of the members of other departments of the university.
5. Stimulate music teachers to strengthen their professional growth.
6. Utilize long-range plans.
7. Aim at strengthening string education curricula in the universities.
8. Assist rather than govern. Local community leadership is necessary for the success of the program.
9. Obtain continuous help from university experts for the public schools.
10. Encourage extension programs in other universities on a state-wide basis.
11. Undertake further research in setting up effective public programs, determining the effectiveness of in-service training as a follow-up for pre-service training, and ascertaining how to stimulate students' interest.

Ib. (2) Public school programs, regular term and summer.

If the panelists were unanimous on any single point, it was that whenever possible, the public school system should avoid having any teacher teach an instrument other than his own major instrument. It was agreed that "jack-of-all trades" music teaching should be supplanted by the efforts of a group of circulating or peripatetic music teachers, each

specializing in one type of instrument.

Consideration was also given to the advisability of using graduate assistants from the universities to improve or enlarge public school string programs. Michigan State University presently is working on a program in which, through stipends and assistantships, graduate students are sent to nearby communities in the capacity of teachers, advisors, and clinicians for the public schools.

Another area for future contemplation by the anticipated national council of string experts is the establishment of standards for basic string technique; such a program, it was felt, would be especially helpful for teachers in public schools.

Public school programs might be improved, it was suggested, according to the invaluable suggestions outlined in the U. S. Office of Education pamphlet, "Music in Our Schools: A Search for Improvement." This report of the findings of the Yale Seminar on Music Education held in June, 1963, proposes concrete action in many areas including the following:

1. The development of musicality should be the primary aim of music education from the first through the twelfth grades. Music teaching in the public schools should be done by teachers trained in music.
2. The present repertory of school music should be updated to the contemporary level of composition and musicology as well as strengthened in its coverage of standard literature.
3. Guided listening to the vast literature of music should occupy a larger place in the schools, with emphasis on teaching students to understand a wide variety of genres.
4. A balanced program of performing activities--including symphony, string, and chamber orchestras, concert bands, and choruses--should be available in all junior and senior high schools. Instruction in vocal and instrumental performance should be available free of charge, along with basic courses in musicianship, theory and literature.
5. Special, advanced courses in theory and literature should be available to the musically advanced students in the schools.
6. A program to bring musicians, composers and scholars into the schools, in teaching and nonteaching positions, is recommended, to include performers, conductors, scholars, and composers in residence; visits by touring artists; and contributions from musicians living in the community.
7. Community resources should be expanded and utilized to greater advantage--for example, permitting local professional musicians to teach in the schools.
8. National resources should be expanded to make opportunities for advanced music study available in the less populated areas far from the large music centers.
9. Audiovisual aids, if properly prepared and used, can contribute greatly to music teaching. However, in order to fully utilize such modern aids as films, tape recordings, phono-

graph records, and television, a considerable amount of research and development is required.

10. Before successful curricula revisions can be made, an extensive scheme of teacher training and retraining will need to be undertaken. This can be done through institutions at universities and regional workshops as well as through re-examination of undergraduate and graduate teacher training programs.

Roman Totenberg, who expressed concern with the aspect of recruitment, described exemplary efforts in other countries. In Sweden, with government aid, groups of selected teachers travel across the country in spring or summer to recruit gifted students for summer camps. The students receive instruction and are encouraged through chamber and orchestra music performances. Similar work has been carried out in Canada with success. Totenberg proposed the advisability of introducing similar recruiting methods in the United States if government or foundation support can be secured.

Theo Salzman brought up a final point in regard to summer conferences for young students. While one successful program exists, he stated, many more are needed. He cited as the example the String Congress of the American Federation of Musicians in which some 100 talented string players are selected annually from all over the country (union locals supply funds in part and hold auditions to select winners). The winners have assembled in East Lansing for the past four years, where the eight-week program has been held at Michigan State University.

Salzman emphasized that the value of such a summer program lies not only in the orchestra techniques learned by the students but in the confidence the students gain in themselves and the contacts they develop among themselves. He noted that the experience lent decisiveness to many of the students' career intentions.

Ib. (3) College and conservatory curricula.

The panelists' contributions were summed up by Mr. Silverstein: "The general feeling is that we should recommend a general reversal of the importance of subjects in the college curriculum for the music major. It would seem that the curriculum, as outlined by Mr. Burgin, should allow the student a period of time not less than one-half of his total credits of school involvement, to be devoted to the study of his instrument along with the other subjects. It seems that a five-year-curriculum is indicated."

Specialized education on the college level, according to the suggestion, would emphasize the major instrument, especially during the first two years, with such additional courses as piano, harmony, solfège, structure of composition or form, foreign languages (enough to understand foreign terminology), and in the field of English, poetry. Secondary liberal courses would center primarily around music.

In reference to the last point of the proposal, the remarks of Allen Britton reflected a desire with which the panelists generally concurred: "I refer to the five-year curriculum leading to the Master of Music Degree and incorporating a teacher's certificate. . . . This curriculum

is suitable to train a performer in a symphony orchestra or a teacher in the public schools. . . . We should recommend a college program generally designed to train musicians who can also teach in the schools or play in a symphony orchestra."

Richard Burgin also suggested a revised curriculum containing a "balanced" musical program with sufficient specialization as well. He suggested, following the major instrument, subjects including piano (for learning harmony), languages (for foreign terminology), acoustics, and care and conditioning of one's instrument. Such a "musically balanced" program would, he hoped, counteract the neglect of their music by college students too busy with nonmusic courses. Burgin also pointed out the need to recognize that the preparation time required in earning credits in the performing areas is at least double that of outside study expected in academic courses. His suggestion re-emphasized a similar one made by G. Weber of UNESCO, who has proposed performance and practice-time credit for in-service teachers in the public schools.

Recognizing the need to allow undergraduate and graduate level students to perfect their professional performance, Henri Temianka proposed that established organizations such as MTNA, MENC, and ASTA should study and make proposals to update curricula on the college and, especially, high school level since the latter is the level at which many prospective orchestra string players are lost.

Ib. (4) Professional training orchestras (New School of Music, Philadelphia National Orchestra Association, American Symphony Orchestra, Interlochen Arts Academy, etc.).

Agreement as to the value of professional training orchestras was unanimous among panelists who suggested further support of existing ones and creation of additional ones in areas lacking similar organizations.

Support was voiced by Orlando Cole: "As one who comes from The New School of Philadelphia, as well as the Curtis Institute, I want to say that it's a tremendously valuable asset to have specialized training in the orchestral repertoire, and that is what I think is foremost in Mr. Leinsdorf's mind in trying to replace players for the symphonies throughout the country. Now, in addition to having just weekly or twice-weekly orchestra rehearsals, studying, and analyzing the orchestral repertoire, we also have string classes that study these parts under very capable direction--bowings, and fingerings, and studying from the score and really making a major subject of this. . . . I think that a great effort should be made to specialize in orchestral playing if we want to train orchestral players."

Not only professional training orchestras but professional training schools are recognized as valuable assets in string education. A school mentioned throughout the symposium was the North Carolina School of the Arts which is due to open in September, 1965, under the direction of Vittorio Giannini. This school is to function on elementary, secondary, and college levels in order to provide the best and most comprehensive professional training. Plans call for one-half of the daily schedule to be devoted to art or music and the other half to an academic program.

A similar school has been programed by Yehudi Menuhin and Ruth Railton--the London Junior Music School--to pioneer an early start in music and to foster the development of a "complete musician." The Toho Music Academy in Japan also is organized on a similar basis.

Ib. (5) Teaching tools, films, educational television, and other materials.

Films were judged to be especially desirable teaching tools. Paul Rolland advanced their primary importance: "With films we can reach teachers all over the country, and children can be shown these films. I propose that we produce two types of films: the pedagogical, analytical type of films, and repertoire films. Let's work out the basic repertoire and have the finest artists produce recordings and films showing the performance on some of the basic repertoire." Joseph Silverstein added that such performances of elementary repertoire would be especially exciting for students working on that level.

Television programs for teaching public school teachers instructional methods and techniques, as proposed by Theo Salzman, drew interest. Salzman would not only use National Educational Television but would attempt to break into large private network broadcasting. Salzman would try televising pilot programs for college music education majors, showing outstanding teachers at work.

One reservation was mentioned in connection with the use of television, however. Since television is presently limited by its tone quality factor, this matter will require attention if the medium is used for further music educational purposes.

Ib. (6) String quartets "in residence."

There was little doubt about the impact of string quartets in exciting and stimulating the imagination of string music students. Henri Temianka, as member of the quartet in residence at the University of California, ascribed "considerable value in spreading the gospel of music" to the performance of his quartet in elementary and secondary public schools throughout his community.

The only qualification in using string quartets to encourage children's taking up stringed instruments as well as appreciating music is the need to recognize that a different function requires a different approach. Chairman Louis Krasner pointed out that "making performers is different from making listeners," and that consequently programing and presentation must be arranged differently by string quartets which have the purpose of interesting children in the instruments as well as the music.

Ic. What organizations are most effective or best equipped to implement improvements? Is greater cooperation or collaboration possible? Is ASTA doing what it should? MENC? MTNA?

Independently, the panel decided, ASTA, MENC, and MTNA are effective organizations; but closer affiliation and greater intercommunication between them, more financial support, and cooperation with advisory boards of various colleges and universities would increase their effectiveness. Paul Rolland suggested that the symposium rec-

commend ASTA for grants enabling it to carry out such programs as those suggested by speakers, panelists, and the audience.

Equally recognized as organizations effective in stimulating string interest are Young Audiences, in New York, which gives concerts for children and teaches them about music and instruments, and Gateway to Music, in Pittsburgh, which presents chamber music concerts in the public schools and introduces audience participation.

Such groups, according to Henri Temianka, could work in both small chamber groups and large orchestra groups in the public schools. These groups, he added, are presently sponsored in California by several large industrial corporations whose employees finance programs of great music, with commentary, for children. College string quartets also give concerts in the public schools, sponsored by such programs.

Similarly, important organizations whose facilities should not be overlooked are the colleges and universities. According to Roman Totenberg, "If the colleges and universities were pressurized and given funds to implement the improvement, they could, better than anybody else, sponsor the music in the community."

Theo Salzman cited broadest application of string congresses, help for expansion and intensification of school programs such as Young Audiences and Gateway to Music, and the creation of nationwide, free student training orchestras as all deserving the attention of foundations, the federal government, and the musicians' union.

II.a. Other factors in the string instrumentalist shortage.

What positive steps should be taken, such as surveys, studies, experiments, demonstrations, curricula revisions, improved materials, apprentice employment, etc.? By what agencies would these steps be most appropriate?

Since many of the steps for positive action asked for in this question had already been discussed, the panel soon went on to other topics. First, however, several important suggestions were contributed.

Paul Rolland, as ASTA president, expressed an eagerness for ASTA committees to take charge of carrying out proposals, given appropriations from a foundation. He elaborated on a planned program covering four areas: (1) projects directed to aid students and teachers (planned projects include educational films, state and regional summer conferences, and curriculum study concerned with selecting a basic, standard curriculum and with devising string programs for communities lacking them); (2) student projects including a youth magazine for young string players and orchestra members; (3) research of Suzuki principles and extended rote approach and coordination with note-reading techniques; and (4) symphony player liaison, with summer conferences to train symphony players to teach in public schools and clinics, especially during the symphony off-season. In the area of studies which might profitably be undertaken, Howard Boatwright pointed out the need for a study of the methods of earning a living of "the large middle ground of professional musicians who play in the smaller orchestras and who have to put together a livelihood from several different places. . . . This

would be the area to study in order to decide what to do most effectively to make the profession worthwhile. Nobody tells a student in school about this particular area. We need to point out that there is a mixed profession available for a great many people."

Other studies suggested would explore Shinichi Suzuki's methods and their possible application in the United States. Behind these studies, it was suggested, workers' concerts in factories might be organized as part of an effort to provide a proper environment for encouraging string playing. Such concerts, supported in Japan by workers' organizations, were viewed as encouraging the atmosphere which makes the Suzuki method's success possible; their beginnings in America are evidenced by a program of chamber music concerts due to begin in a Philadelphia corporation.

A variety of other experiments were brought up for attention. Chairman Louis Krasner pointed to a new area of untapped natural resources: "Two, three, and four generations ago, our large immigrant groups helped foster music life and growth in America. . . . We have in present times millions of citizens who might serve music equally well and whose lives might also be brightened by the opportunities of music. . . . Music training for the educationally underprivileged as part of the educational program in the War on Poverty is something for our national authorities to consider. The possibilities of music have been overlooked by our experts in their organization of the youth delinquency and youth development programs."

He proposed to start a pilot program in elementary schools which have a large percentage of underprivileged students. Lessons would be given to a group of children who show some indication of musical talent or interest; their mothers would be present at these sessions in order to be able to supply encouragement in home practice. Such programs could use the teaching resources of local university personnel and students.

Joseph Silverstein suggested that the panel recommend that one of the major midwestern universities which has shown concern for music education start an experimental school for children who early exhibit musical aptitude. Such schools would be similar to the Curtis Institute at Philadelphia but would be modernized in scope and aims. Ideally, they would give the children intensive music training and also the opportunity of hearing live performances, often by outstanding musicians.

Paul Rolland added two further suggestions for experiments; one was a proposal to channel teaching talent and public funds into public music schools where private and public teachers would work together (the private teachers coming from settlement schools or symphony orchestras). These classes would be held after public school hours, using public school facilities; they would be governed by the school board, interested civic leaders, and representatives of public and private teachers. They could be coordinated with the local youth symphony orchestra. Support for these public music schools might be financed by

community support and by tuition charges with free tuition for needy students.

Rolland's second idea, one mentioned by other symposium members as well, emphasized experimentation by American music teachers with the European "master class" situation. "The choice between class or private teaching is not as clear-cut as many professionals believe," he stated. "The American approach--in unison or in ensemble--has the same social stimulus as the master class situation, but it does not stimulate the individual as well as the others.

"Class teaching is most successful when it is done on a daily basis or at least three times a week. . . . Owing to the frequency of meetings, the teacher can exercise greater control over the progress of the student in the early stages than he could in one single lesson. In such a class program, the aspects of note reading, ear training, and even the establishment of better positions and bowing can be better taught with frequent classes than with less frequent single lessons. However, teaching the aspects of intonation and finesse of tone can be effected better in private lessons." This type of instruction was seen to have a second important value in being at the same time a teacher training situation.

In the matter of demonstrations, Roman Totenberg found support for his suggestion that ASTA be given funds to send teams of performers and teachers to communities which need help. Such aid would be given in clinics during the year and especially in the summer. During the music season, colleges and universities could assist by sending students to nearby communities to teach in public schools and give private lessons.

Henri Temianka proposed: "A further foundation grant should be established for a national string teachers bureau. This would make it possible for smaller communities to borrow for a few days at a time the services of the eminent string teachers whose activities are now concentrated in a few big cities and leading music schools."

Another useful idea stressed by two representatives of instrument makers and dealers would encourage student string musicians' interest in the condition of their instruments. Kenneth Warren, of K. Warren and Son, Chicago, suggested that violin dealers, makers and repairers teach students about their instruments and bows by giving talks at the String Congress, Eastman School of Music, the Curtis Institute, and the colleges and universities.

Mr. Duffy, of the Wurlitzer Co., advised of the need for teaching players about the condition, care, and adjustment of their instruments. Two- or three-day workshops could be given, he noted, at music schools and universities in order to remedy the lack of knowledge and to keep private and public school instruments in good condition. Better instruments and instruments in proper condition would encourage students. Chairman Krasner supplemented Duffy's suggestion, recommending that dealers follow a policy of keeping instruments serviced, particularly those sold to schools and universities. He added that there is some concern for the string problem among music publishers, and that an exchange of ideas would be useful.

Moving on to steps in curriculum revision, Orlando Cole re-emphasized the need for sufficient advanced technical training with possibly a five-year college curriculum, devoting the first one or two years to intensive applied music with ample practice time. College and University certification for teaching string instruments in the public schools should be restricted to string majors.

Adelbert Purga, a teacher in downstate New York, reasserted the desirability of seeing that students entering liberal arts colleges and universities are allowed credit for secondary school music courses. His suggestion, it was agreed, could apply to practice and performance time credit for in-service teachers as well.

Selection of a standard, graded body of materials, and some commissioning of new materials for the intermediate student were the primary recommendations in the area of improved materials; a connection was seen between the present lack of such material and the decline in the number of students at that level.

Henri Temianka, in fact, proposed persuading gifted composers to follow the examples of Benjamin Britten's "Noye's Fludde" and Vaughan Williams' Concerto Grosso for use in community and school projects. Such highly dramatic group presentations, he felt, might help promote social acceptance of stringed instruments.

Aside from John Corigliano's suggestion to set up a probationary period of two years for young musicians before placing them in major orchestras, not many proposals were made regarding apprentice employment. What was emphasized, however, was the idea of using musicians to their fullest capacity for their own benefit as well as for the advancement of string interest. Corigliano, New York Philharmonic concertmaster, in a letter to the chairman suggested capitalizing on the experience of retired musicians from major symphony orchestras by using them as sit-in advisors in minor symphonies.

Paul Rolland also was concerned with full utilization of musicians' talents. "Every symphony," he pointed out, "has a number of players who are potentially capable teachers and yet are unemployed between April and October. If they could attend, under a grant, a number of ASTA-sponsored summer conferences where they would observe the work of master teachers, meet with teachers from the schools and colleges and with young students, then they could go under a grant to specified areas during off-season to help the public school teachers with clinics and demonstrations and some teaching. . . . Both the symphony player and the school would benefit."

For Henry Temianka, the idea carried an even greater interest as part of a solution to a much-debated problem: "If we could concentrate first of all on producing first-class instrumentalists from the colleges and universities, and then if a plan could be evolved under which orchestras would consist of those very same people who teach, so that part of their income would come from the orchestra and part of it from the college, then the whole economic problem would be solved."

Louis Krasner suggested that symphony orchestras which operate like the Boston Symphony, on a year-round schedule be greatly en-

larged. Trebling the number of performers would mean that playing time could be apportioned; the advantages of such a move would be many. Instead of finding their musical energies exhausted in the single effort of continuous subordination and the discipline of the orchestra, players could devote part of their time to teaching and to chamber ensemble playing. By participating in such activities, they would be contributing to the future of music, especially through their inspirational contact with students.

At the same time, he stressed, the instrumentalists would be exercising their own individuality and fostering growth and development in themselves. The variety and the individual challenge in these additional capacities would counteract the sense of frustration and antagonism which develops in so many artists after many years of tutti playing.

IIb. Could present employment practices, including auditions and notices of vacancies, be improved?

Partly because the nature of the string problem is that of a shortage, there seems to be little need for employment agencies. However, since there was general agreement on the usefulness of one such now-defunct agency, the panel recommended the establishment of an employment bureau for orchestra musicians, as an aid to both the individual musician seeking employment and the orchestra in need of performers.

IIc. Are academic degrees of increasing importance to professional musicians, or teachers in studios? Is the apparent demand for such degrees barring competent professional string musicians from teaching posts in colleges and universities?

After much deliberation, the panel agreed on the increasing importance of academic degrees to professionals and teachers in the future.

Henri Temianka pointed out the vocational problem: "Today, the professional string player's only hope for security lies in a school job. To obtain one he needs a degree. A B.A. is scarcely sufficient any longer. . . . The academic curriculum imposed by the higher institutes of learning is so relentless that little time is left for the actual study of the stringed instrument itself. In consequence schools across the country are turning out armies of string teachers with impressive academic titles, but frequently without the professional competence to play or teach stringed instruments."

Allen Britton supported degrees instead of the artist's diplomas awarded by major institutions on the east and west coasts because of the importance of academic degrees to teachers. (He anticipated performers' desire to teach.) He cited the academic degree as the only means by which many nonmusicians can evaluate the qualifications of, for example, an applicant to a graduate school of music. Britton also pointed out the value of standardizing the degree awarded by a college music department in accordance with degrees in other departments, feeling that this would strengthen the music department within the college.

Britton described the doctoral degree for performers as "a card of admission . . . that the academic world can understand," adding, "Many years ago, when we were arguing in favor of a doctoral degree for performers in addition to the one for musicologists, our argument was that since colleges tend to appoint deans who have doctoral degrees, unless we made them available to performers, we would end up with deans who were all musicologists."

While some were inclined to stress differences between performers and teachers, Joseph Silverstein argued, "At this point we can ill afford to separate the professional player and the teacher. . . . The man in the Boston Symphony (perhaps hired without an academic degree) is at one point or another going to be called upon to be affiliated with an institution of higher learning, and therefore he is going to need a degree."

Another outlook suggested that even if it is possible to hold a college teaching position without a degree, the degree-holder earns a larger salary, if not on initial employment, then certainly in advanced positions.

III. Resources. What is needed in personnel, facilities and equipment, and funds to carry out symposium recommendations?

Unanimously, the panel left the matter of resources to be determined by the designated council of string experts on the basis of investigation of the preceding suggestions.

Although panelists agreed that many of the proposed steps for solving the string shortage problem would be begun under the auspices of foundations, there were reminders of the need to seek government funds, too. John Corigliano held for government subsidies for young performing artists, and Joseph Silverstein remarked about government subsidy: "It's here--in the form of tax relief given the various foundations; it's here in the form of state art councils. It's here in the form of students who are traveling around Europe on government grants."

IV. The symposium. What is the next step, if any? Another symposium? For what purposes, and what specialists?

As indicated earlier, the symposium members reiterated their call for a national council of string experts to be formed as a permanent body.

Thus, the 1964 String Symposium closed on a definite note of accomplishment. The panelists had reached agreement on many goals, supplying invaluable suggestions for use in encouraging the increase and improvement of string instrumentalists on an immediate and long-range basis. The symposium members had contributed ideas from their collective knowledge of trouble spots and had suggested methods for solution; they had made their recommendations for the specific examination, testing, and possible implementation by a national committee of string experts. Now it remained for those charged with administrative authority and responsibility to implement, to put into operation such a committee--to put, so to speak, a beginning to the end of the problem of the string instrumentalist shortage.

It was on a note of mixed feelings that the second String Symposium came to a close. Perhaps the dominant emotion which marked the program was the spirit of enthusiasm and the conviction that only the continuation of such collective efforts could bring solutions for the difficult and challenging problems which had been examined and clarified during the sessions. These sentiments were reflected in the closing remarks of the chairman, Louis Krasner. He thanked not only the participants but especially the audience, whose intense interest and rapport had greatly stimulated the offerings from the platform. In concluding, he expressed his appreciation to the Martha Baird Rockefeller Fund and to the Berkshire Music Center who, beyond providing generous financial support, had also demonstrated a genuine interest and concern, thereby transforming a long-endured sense of frustration into a feeling of confidence and hope.

RECOMMENDATIONS AND OUTLOOK

The purpose of the Berkshire Music Center String Symposia was to discuss and clarify the causes underlying the general decline of interest in string playing, which has resulted in a critical shortage of qualified string players and teachers.

The first symposium in 1963 was an exploratory meeting to seek out trouble spots in string study and teaching. On the basis of its findings, the 1964 conference was organized to consider in greater detail and depth the areas defined as needing investigation and to suggest possible courses of remedial action.

The results of the combined efforts of the many eminent participants of both meetings are a set of recommendations for the purpose of rejuvenating the entire field of string study and performance. These recommendations were set forth during the last session of the 1964 symposium and were succinctly outlined by Donald L. Engle, Director of the Martha Baird Rockefeller Fund for Music, Inc., as follows:

A. General proposals

1. Summer seminars for teachers, to be held at such places as Tanglewood or Aspen. Conclusion: High school teachers should be taught by professional musicians, under a program in which they would get tuition and perhaps a stipend, as is done with science teachers. Source of support: Foundations, MENC, instrument makers.
2. Clinics. Professional musicians would travel occasionally to various cities, meet string groups, introduce new methods and materials.
3. Licensing of teachers. Requirements should be re-evaluated. Licensed teachers should be in the grade schools.
4. University curricula. A five-year program was proposed; four years is proving too short for the requirements of a musical, technical, and general background.
5. School administrators. School administrations should be acquainted with their responsibility for identifying and channeling talent to good teachers and advanced instruction.
6. Prekindergarten testing and exploration should be introduced, with groups established after the pattern of the mass training by the Japanese teacher Suzuki.

B. Specific proposals

1. A general council should be formed. This would be evolved from representative groups, and would set priorities from symposium discussions. Subcommittees would be appointed to resolve problems.

2. Programs of community and settlement music schools should be implemented. These, plus preparatory departments of conservatories, produce concert string players; public schools cannot.
3. University extension projects. Prof. Louis Trzcinski advised:
 - a. Aim programs toward the development of in-service training.
 - b. Develop both youth and adult education programs.
 - c. Work for interuniversity exchange of ideas and research. Other universities may be contacted by the National University Extension Association.
 - d. Make use of the members of other departments of the university.
 - e. Stimulate music teachers to strengthen their professional growth.
 - f. Utilize long-range plans.
 - g. Aim at strengthening string education curricula in the universities.
 - h. The university should assist, not govern. Local, community leadership is necessary for the success of the program.
 - i. Obtain continuous help from university experts for the public schools.
 - j. Encourage extension programs in other universities on a state-wide basis.
 - k. Undertake further research regarding setting up effective public programs, determining the effectiveness of in-service training as a follow-up for pre-service training, and ascertaining how to stimulate students' interest.
4. Graduate student assistants should be used in public school programs.
5. Professional training orchestras. There was strong agreement on their value. Reference was made particularly to Menuhin's string school, the new conservatory in North Carolina, the Interlochen Arts Academy, and The New School of Music in Philadelphia.
6. Teaching tools. The following were evaluated and further use recommended:
 - a. Films and recordings.
 - b. National Education Television
 - c. Quartets in residence, considered excellent.
7. Existing organizations. The effectiveness of several was discussed:
 - a. ASTA, MENC, MTNA. Considered effective individually, but closer affiliation is needed. Greater financial support is also needed.
 - b. Young Audiences, Inc.
 - c. Local programs: Gateway to Music in Pittsburgh cited.
 - d. String congresses under various sponsors.

8. ASTA proposals for further consideration:
 - a. Projects directed to aid students and teachers (planned projects include educational films, state and regional summer conferences, and curriculum study concerned with selecting a basic, standard curriculum and with devising string programs for communities lacking them).
 - b. Student projects, including a youth magazine for young string players and orchestra members.
 - c. Research of Suzuki principles and extended rote approach; coordination with note-reading techniques.
 - d. Symphony player liaison, with summer conferences to train symphony players to teach in public schools and clinics, especially during the symphony off-season.
9. Studies to be made:
 - a. Suzuki method as applicable in the United States.
 - b. Free lessons for underprivileged students in the public schools.
 - c. An experimental school for early aptitude youngsters.
 - d. Improvement of master class techniques.
10. Demonstrations. Teams of performers and teachers to be developed for clinics.
11. National string teachers' bureau. Provide professionals to serve smaller communities a few days at a time.
12. Instruments. Attention among students to better care and adjustment. Talks in schools, summer activities, colleges and university workshops.
13. Improved teaching materials. Better standards, graded selection, and new materials are needed. New materials should be commissioned.
14. Training symphonic teachers. Prof. Rolland recommended grants to permit symphony musicians to attend summer conferences of ASTA, and to provide clinics and teacher-training projects outside the symphony season.

Foremost in the minds of all String Symposium participants, members of the audience, and hundreds of persons consulted, was the concern that the Tanglewood project should not be another isolated and inconclusive attempt to deal with the string crisis. Rather, the call was repeatedly voiced that now a concerted plan should be formulated to ensure the contribution and vitality of strings in the development and expansion of music as part of our nation's cultural growth.

As this report is written, a small group of advisors is being assembled to discuss the concrete steps necessary to implement the above recommendations. Consideration has already been given to a Berkshire Music Center Seminar for String Teachers in the summer of 1965 in accordance with the first recommendation listed above. Thus, for the third successive year, String Problems, Players, and Paucity will again be investigated in all its ramifications. In addition and more specifically, in this

summer seminar, ideas on new approaches to contemporary string technique and pedagogy will be reviewed and studied by a selected group of teachers and performers.

On the basis of interest, collaboration, and accomplishment thus far, the outlook appears reassuring.

NOTES ON PARTICIPANTS AND OBSERVERS

SAMUEL APPLEBAUM--Manhattan School of Music; American Editor of The Strad; author of the String Builder, co-author of With the Artists; other publications.

MAX ARONOFF--Director, The New School of Music, Philadelphia; faculty, Curtis Institute and member of Curtis String Quartet.

HOWARD L. BOATWRIGHT, Jr.--Dean, School of Music, Syracuse University; formerly faculty, Yale University; violinist, conductor, theorist, Fulbright lecturer in India; numerous awards and prizes.

ALLEN P. BRITTON--Associate Dean, School of Music, University of Michigan; past president, Music Educators National Conference; editor, Journal of Research in Music Education; author of articles on education and early American music in Journal of Research, Music Educators Journal, et al.

ANSHEL BRUSILOW--Concertmaster, Philadelphia Orchestra; active as violin soloist and chamber music conductor.

RICHARD BURGIN--Associate Conductor, Boston Symphony Orchestra; formerly Concertmaster of Symphony Orchestras of Leningrad, Helsinki, Oslo, Stockholm; Concertmaster of Boston Symphony Orchestra until 1962; Head, Dept. of Instrumental Music, Berkshire Music Center; Chevalier of the Legion of Honor.

STUART CANIN--Professor of Violin, Conservatory of Music, Oberlin College; faculty, Aspen Summer Festival; First Prize, Paganini International Violin Competition, Genoa, Italy. 1959; New York City Handel Medal, 1960.

ORLANDO COLE--Cellist, Curtis String Quartet; faculties, The Curtis Institute and The New School of Music, Philadelphia; has concertized in the U. S. and Europe since 1927.

JOHN CORIGLIANO*--Concertmaster of the New York Philharmonic Orchestra since 1943; recitalist and soloist annually with N. Y. Philharmonic Orchestra.

RAFAEL DRUIAN--Concertmaster, Cleveland Symphony Orchestra;

formerly Concertmaster of Dallas and Minneapolis Symphony Orchestras and Professor at University of Minnesota; faculty, Cleveland Institute; numerous appearances as soloist with orchestras; faculty, A. F. of M. Congress of Strings.

BROADUS ERLE--School of Music, Yale University; taught and performed in Tokyo for four years; former first violinist in New Music Quartet.

SAMUEL GARDNER--violinist, composer, teacher; taught violin at the Institute of Musical Art, now the Juillard School of Music; Pulitzer Prize winner for First String Quartet; author of "School of Violin Study, Based on Harmonic Thinking."

JOSEF GINGOLD--Professor of Violin, Indiana University; member of the NBC Symphony under Toscanini and Concertmaster of the Detroit and Cleveland Symphony Orchestras; faculty, Meadowmount School of Music; active as soloist and ensemble artist.

SIDNEY HARTH--Head, and Mellon Professor, Dept. of Music, Carnegie Institute of Technology (Pittsburgh); formerly Concertmaster, Chicago Symphony Orchestra; recitalist and soloist with many orchestras in this country and in Europe; faculty, Aspen Music School.

MAX KAPLAN--Musician and sociologist; faculties of music and sociology, University of Illinois; formerly Director of Arts Center, Boston University; consultant to Lincoln Center; MENC Chairman, Commission VIII, Music and Community; author of Leisure in America, Art in a Changing America, et al.

ROBERT KLOTMAN*--Supervisor of Music Education, Detroit Public Schools; past President, American String Teachers Association.

JOSEPH KNITZER--University of Michigan; Interlochen Arts Academy; formerly Eastman School of Music and first violinist, Eastman String Quartet; active as soloist.

LOUIS KRASNER--Professor of Music, Syracuse University; Concertmaster of Minneapolis Symphony Orchestra under Dimitri Mitropoulos; world premiere of Alban Berg and Schoenberg violin concertos; faculty, A. F. of M. Congress of Strings.

WILLIAM KROLL--Violinist; founded the Kroll String Quartet; faculty, Mannes College of Music, Peabody Conservatory and Cleveland Institute of Music; faculty, Berkshire Music Center; awards: Loeb Prize, Coolidge Foundation Medal.

SHEPPARD LEHNHOFF--Violist; member of Chicago Symphony Orchestra; formerly principal violist National Symphony Orchestra and member of Philadelphia Symphony Orchestra; cofounder of Fine Arts Quartet.

ERICH LEINSDORF--Music Director, Boston Symphony Orchestra, and Director, Berkshire Music Center.

RUTH POSSELT--Violinist; soloist under Monteux, Paray, Menglberg and Szell in Europe; soloist with orchestras in Boston, New York, Chicago, Detroit, Washington, Cincinnati, St. Louis; Head, Violin Dept., Wellesley College; faculty, New England Conservatory of Music; Head, Chamber Music Dept., Florida State University; faculty, Berkshire Music Center.

PAUL ROLLAND--Violinist, School of Music, University of Illinois; President, American String Teachers Association; recitalist, writer, and clinician; performed in the United States and in Europe.

THEO SALZMAN--Cellist, College of Fine Arts, Carnegie Institute of Technology (Pittsburgh); formerly solo cellist, Pittsburgh, Vienna and Israel Symphony Orchestras; member, Carnegie Fine Arts Quartet; faculty, A. F. of M. Congress of Strings; active as soloist and ensemble artist.

HENRY SIEGL--Concertmaster and Assistant Conductor, Seattle Symphony Orchestra; previously Concertmaster, New York Ballet, Orquestra Sinfonica da Brasileira; founder and member, Siegl String Quartet.

JOSEPH SILVERSTEIN--Concertmaster, Boston Symphony Orchestra; member of Boston Symphony Orchestra since 1955 and Concertmaster since 1962; award winner in Queen Elizabeth of Belgium International Competition (1959); won Walter Naumberg Foundation Award (1960); faculty, Berkshire Music Center.

PAUL STASSEVITCH--Chairman, String Dept., De Paul University School of Music; debut in New York in 1924 as violin and piano soloist.

HENRI TEMIANKA--Professor, California State College at Long Beach; lecturer in music, University of California, Santa Barbara; cofounder and first violinist, Paganini String Quartet; founder and conductor, California Chamber Symphony.

ROMAN TOTENBERG--Violinist, Professor of Music, Boston University; concertized extensively in Europe, South America and the United States; formerly head of the Violin Dept. at the Santa Barbara (California) Music Academy.

GEORGE ZAZOFSKY--Violinist, Boston Symphony Orchestra; soloist with the Boston Symphony Orchestra; member, Boston Symphony Quartet in residence at N.E. Conservatory of Music; Concertmaster, Zimbler Sinfonietta; faculty, Berkshire Music Center; President, International Conference of Symphony and Opera Musicians.

Observers

HAROLD ARBERG--Specialist for Music Education, Cultural Affairs Branch, U. S. Office of Education.

ADELBERT PURGA--Director of Music, Wellsville Public Schools, Wellsville, N. Y.

JOSEPH G. SAETVEIT--Supervisor of Music Education, the State University of New York.

HOWARD VAN SICKLE--Associate Professor, Mankato State College; Editor, American String Teacher.

* not present at Symposium.